


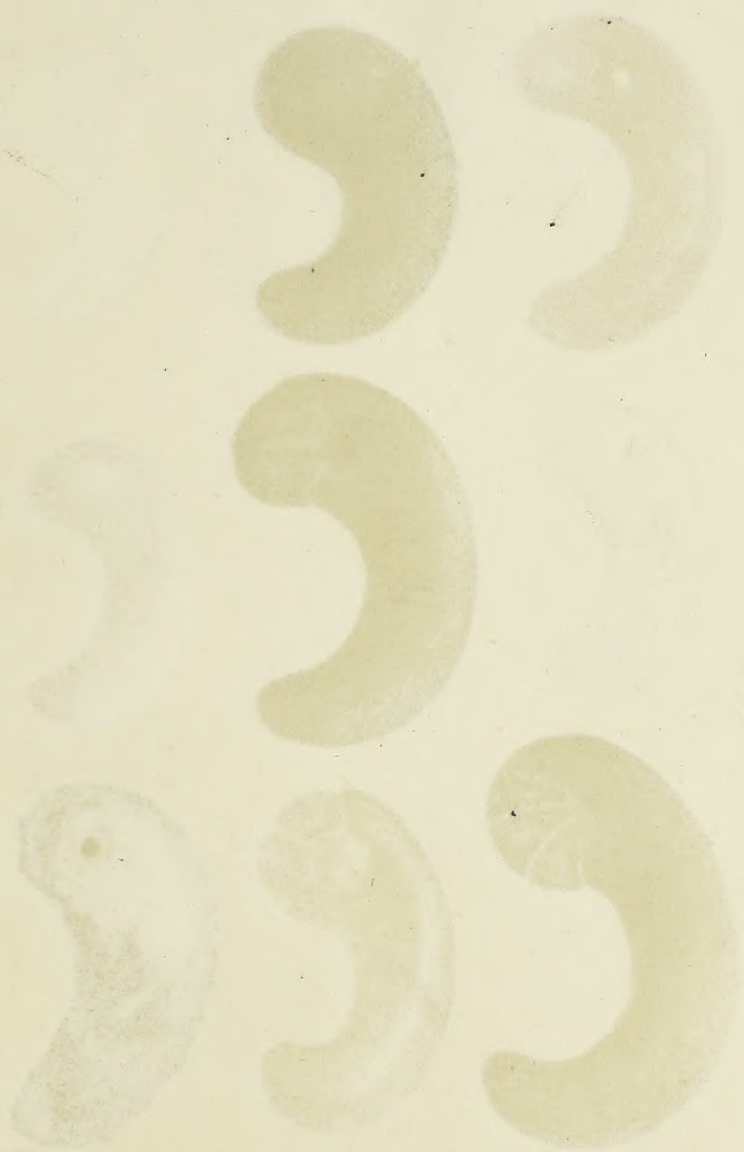
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MAGATAMA.

To Mr. P. Bruhl
With the author's Compliments

21/5/13

PREHISTORIC JAPAN

BY

NEIL GORDON MUNRO, M.D.

AUTHOR OF "COINS OF JAPAN," ETC.

WITH

NUMEROUS ILLUSTRATIONS



YOKOHAMA

1911

IN REMEMBRANCE OF MY SON

ROBERT.

284984

PREFACE.

The following work is an attempt to give the European reader some idea of Prehistoric Japan. A longer preparation would have been desirable but circumstances did not counsel delay. Matters of opinion and even of fact are, consequently, not always stated with the precision which a verbal picture derives only from repeated consideration and retouching. The result is a sketch rather than a complete picture, but it is a faithful sketch so far as it goes, though, perhaps, not without some error of detail. The illustrations will be found sufficiently comprehensive. Many of the photographs have been taken by the writer, some with the kind help of Mr. K. Minakami, whose excellent translations have been of the greatest assistance. Some photographs have also been received from Messrs. Mitwer, Mizutani, Wada and Sato. Some of the specimens exhibited are from private collections, such as those of the late Baron Kanda, Dr. Takashima, and Messrs. Takahashi, Wada, Sato and Nakagawa. The authorities of the Imperial University have permitted many photographs to be taken, and the officials of the Tokyo Imperial Museum have given every facility to inspect and photograph specimens. Nothing could exceed the courtesy of Messrs. Takahashi and Wada of this Institution. Grateful thanks are tendered to

these gentlemen, not only for information freely given when requested but for spontaneous kindness in offering knowledge to one who had little information to give in return.

Mr. S. H. Somerton has very kindly given much help in reading proofs.

Mr. Ernest James has kindly examined various specimens of red pigment from my excavations and two Yamato samples. He ascertained that the former is not cinnabar but hæmatite (Appendix E.) and that the latter consists of ochre. Although cinnabar is certainly found in the Yamato sites, it may be well to withhold opinion regarding its presence in the shell-mounds, until the claims made on its behalf are established by analysis.

A few contractions may be here noted, namely, T. J. Z. for "Tokyo Jinruigaku Zasshi" (Anthropological Magazine), T. A. S. J. for "Transactions of the Asiatic Society of Japan" and K. K. for "Kōkokai" (Archæological World). Specimens not acknowledged belong to the collections of the writer.

Yokohama, January 15th, 1908.

NOTE.—Most of this book was destroyed by fire immediately after completion. Reprinting has been delayed through the author's absence and pressure of other work. January, 1911.

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ERRATA.

Page 577 Omit *the* before Hesiod.

„ 578 Read *Temmu* for Temmei.

„ „ „ A.D. 285 for A.D. 385.

„ 583 „ *Dakiu* for *Dakin*.

„ „ „ Page 564 for Page 594.

„ 630 „ *born* for both.

„ 634 The foot-note marked (*) refers to lines 25-6 of P. 633. That marked (†) to line 14 of P. 634.

PREAMBLE.

The island empire of Japan lies, like a festoon of three curves, along the coast of eastern Asia. The central curve, consisting of the islands of Kyushu and Shikoku in the South, Yezo in the north, and the main island, or Honshu, between, lies opposite a recession of the Asiatic mainland. Its southern extremity approaches near to the Korean peninsula. There are islands in the intervening channel, so that in clear weather land is in sight the whole way. At the northern end of Japan the island of Saghalin bridges over the space between Yezo and Siberia. The Japan Sea, thus enclosed, offered little obstacle to the passage of primitive humanity from the continent to the extremities of Japan, but the early navigator would have encountered serious difficulty in reaching the centre of the main island from the distant opposite shore.

The northern curve of the festoon is formed by the Kurile Islands which reach to Kamchatka and thus outline the eastern boundary of the sea of Okhotsk.

The southern curve consists of the Luchu Islands with Formosa, bounding the Yellow Sea and constituting a series of stepping-stones from the Philippine islands. From thence communication was possible with Malaysia or even Polynesia. There is a strong presumption that along this route, aided by

the northward course of the Black Stream, two stocks of humanity, capable of distinction even at the present day, succeeded in reaching Japan in prehistoric times.

The physical relations of Japan to other lands appointed it a natural rendezvous of various ethnic elements and cultures. Its slight degree of isolation did not prohibit immigration by the channels already indicated, but probably had considerable influence in retaining visitors within this area. On the other hand, the definite lines of communication exercised a selective effect on the peoples within their range.

There are few countries where the vestiges of ancient culture are so apparent and abundant as is the case with Japan. I propose to consider these in some detail, sufficient at least to leave in the mind of the attentive reader a picture of ancient Japan in its prehistoric days and those which ushered in the historical record. It may be useful to compare these early cultures in simple outline and then to glance at the possible sources of the later civilization of Japan, remote though they be, before entering more fully into the subject before us.

Prehistoric archæology has revealed the existence of two distinct cultures in Japan, together with traces of a third. One culture has left numerous relics imbedded in the soil, or in shellheaps; the remains of the other are found mainly in sepulchral chambers and caves, specially built or excavated. Remains of the latter are occasionally disinterred from the soil, but this is an exceptional occurrence. The relics, them-

selves, are so distinct that confusion is scarcely possible, except where the pottery of one culture presents a transitional approach to that of the other.

One is the primitive culture, attested by the existence of over four thousand residential sites, and shellheaps. Metallic objects are absent except in the very rare instances where the sites are overlain by the relics of a later culture. They are characterized by the presence of polished, finely chipped and roughly hewn implements and weapons of stone, together with natural stones which have been applied to various uses. Pottery is almost always present. It is usually, though not invariably, of coarse texture, is never of the hard consistence of stone-ware or porcelain, and is NEVER TURNED ON THE WHEEL. It is commonly of an ornate and sometimes of a highly elaborate kind. Implements of bone or horn are often found and the refuse of food, in the form of shells and bones, is usually encountered in the sites. These relics are never associated with dolmen or cave sepulture, as they sometimes are in Europe.

The word "primitive" has acquired an elasticity which has carried it beyond the idea of a positive beginning. Like the adjective "archaic" it is not infrequently used as a synonym for "ancient" or "crude." It has even, though improperly, been applied to the bronze and early iron (Halstatt) cultures. Modern civilization includes survivals that are truly "primitive" and the expression would be appropriate in connection with the low culture of iron-using tribes in Africa. One cannot, however, cor-

rectly speak of an iron or bronze culture as being in itself "primitive." It is proper to apply the word to that grade of culture emphasized by the use of stone, which not only preceded metals but is still the recognised hallmark of backward humanity. Though wood may, perhaps, claim priority over prepared stone in the service of primitive man, the latter has served as a salient classifier of progress and may be used to differentiate the primitive culture of Japan from that of the Yamato, which made its appearance within the last three thousand years.

The vestiges of the Yamato do not include weapons of stone. Imitations in stone of sheath knives or swords, usually of diminutive size, and occasionally stone copies of bronze arrowheads, occur in the tombs. Certain enigmatical implements of highly polished stone, small models of utensils and, rarely, mortars or other appliances of the same material, with personal ornaments in various minerals are also present. These do not, however, imply a primitive culture. A granite sundial, an alabaster box, an agate pen, or beads of jet or other mineral would not proclaim a "stone age" if disinterred in Europe. They would merely show that the phase of stone had overlapped that of metals. In the case of the Yamato relics the connection is somewhat closer, survivals are more obvious, but the "stone age" was practically a thing of the past.

Some arrowheads, jingle bells, mirrors and so forth of bronze are found in the Yamato tombs, while copper was largely employed to sustain gold and silver plating for mountings, etc. But the main

feature of this culture was iron. The long straight swords and the various horse trappings and other furniture, are well finished and rivetted.

The pottery is of great hardness. The vessels are, with insignificant or partial exceptions, ALWAYS MOULDED ON THE WHEEL. The decoration is simple and restrained. The pottery obtained from the tombs is probably of a type specially reserved for funeral or ceremonial use. The subdued colouring and decoration of this ware, and the existence in other situations, of pottery differing from, yet allied to it, suggest this conclusion.

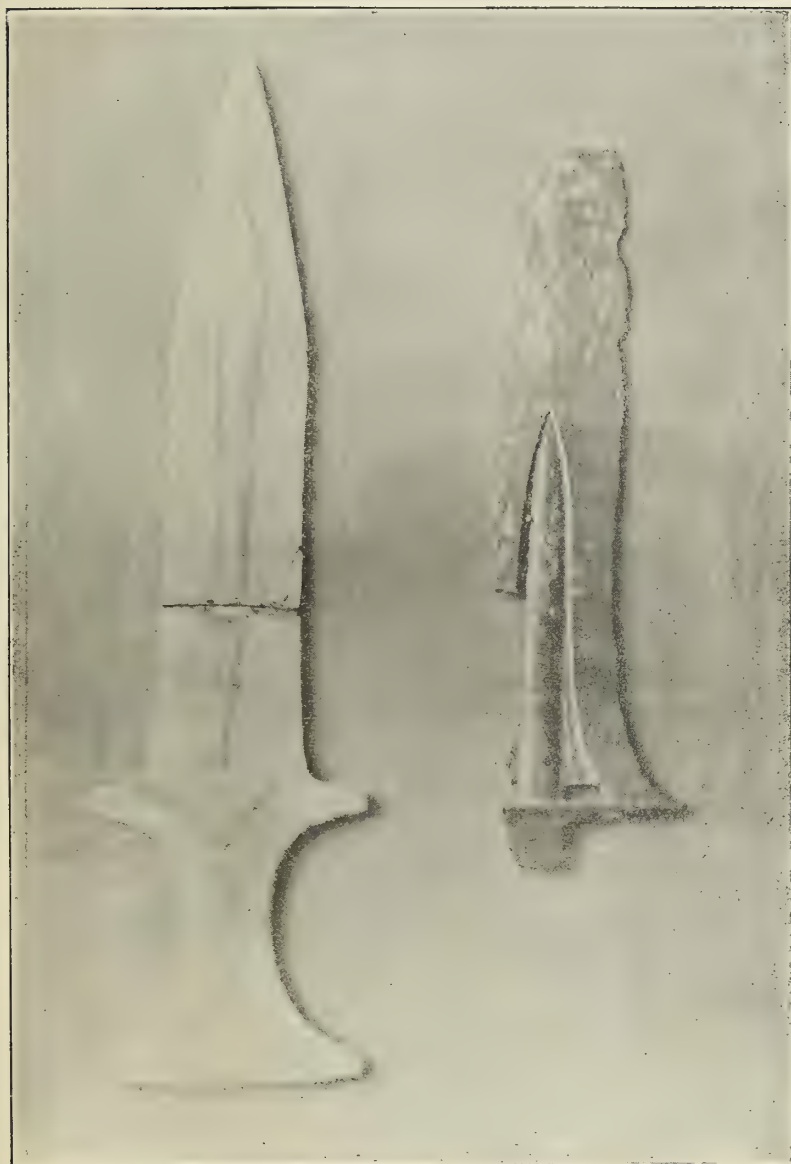
The relics of the Yamato have been called PROTOHISTORIC, but as dolmen building ended before the appearance of written history in Japan, and within four centuries of the introduction of writing, it is more accurate to speak of them as prehistoric. During the 6th and 7th centuries written material existed for the historical works of the 8th, but the interval represents a small proportion of the dolmen period of Japan. The conservatism of funeral custom, too, has placed the stamp of uniformity upon the contents of the tombs, so that there is not very much difference between the contents of the earlier and later dolmens. It is evident that the expression "prehistoric" has only a relative or local significance since the dawn of effective writing, some ten thousand years ago.

There are indications that a bronze culture intervened in the south, between the stone and the iron phases. Weapons of bronze e.g., swords, halberds and arrowheads, are found in the soil of

Kyushu and in some of the provinces lining the Inland Sea. Bronze bells have been recovered as far east as Yamato and its neighbourhood (Map, Appendix A). THESE ARE NOT FOUND IN THE YAMATO TOMBS, NOR IN THE SITES OF THE STONE PHASE. It would appear, therefore, as if they belonged to a different culture from that of the Yamato. The absence of bronze or iron objects from the middings cannot convince us that the stone phase did not come into contact with either of these. The refuse heaps would be the last places for the precious metals, even if the objects were broken. On the other hand we may take it that the existence of stone models in the tombs proves the scarcity of metals and thus brings the stone age into focus.

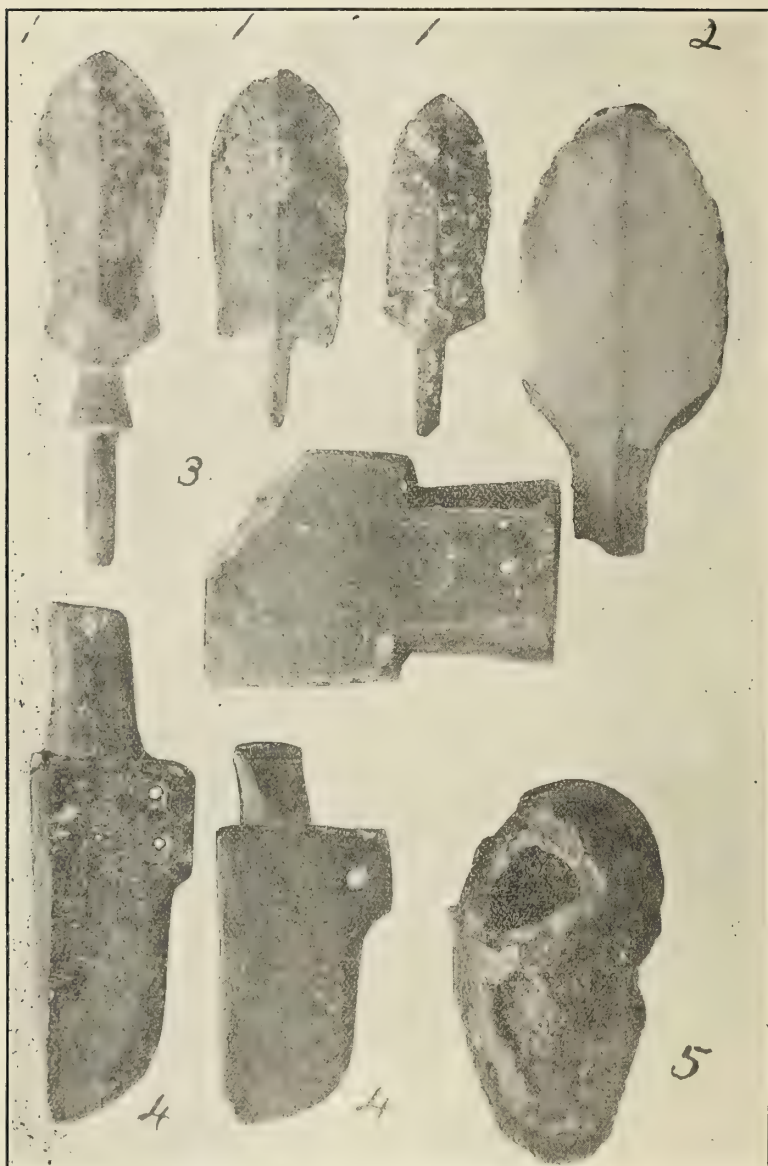
The stone dagger or sword in Fig. 1, was apparently modelled after the bronze weapon alongside it, but the former is from a dolmen in Chikuzen and the latter has not been found within a dolmen, or other recognized Yamato tomb. The stone arrow-head, Fig. 2, No. 2, is evidently copied from a metal model, probably an arrow-head of bronze such as Fig. 2, No. 1. No. 3 of the same figure is a diminutive model in stone of a metal hoe. No. 4, stone imitations of a broad bladed sheath-knife, are frequently encountered in the Yamato tombs, but the original is never seen, though it is in use in central Asia to this day. On showing a large bronze halberd, in my collection, to Mr. C. Woo, Consul General for China in Japan, that gentleman informed me that identical weapons, with the same decoration, have been found in Shangtung. It is interesting to note that bronze

Fig. 1.



Model of Sword in stone, probably copied from that of bronze.
(Slightly less than half size.)

Fig. 2.



Bronze Arrow-heads and Stone models, etc.
(Actual size.)

arrow-heads similar to those in the tombs are found along with bronze swords which are not associated with dolmen burial. These arrow-heads resemble in form the halberds of bronze. Now it is reasonable to suppose that the bronze arrow-heads of the Yamato tombs, which are so similar to those found outside the tombs, together with halberds and swords of bronze, are survivals from a general bronze culture; that the introduction of iron swords had displaced the weaker metal for hacking and cutting, but that the ease with which the latter could be cast had retained it in use for arrow points. It is not impossible that this metal, which is less common than iron as a material for arrow-heads, though less liable to disappear through decay, was in special vogue as an appropriate offering to the dead.

The occurrence in a dolmen, of a stone sword, apparently similar to that of bronze, and the frequent presence of stone models of swords or knives which are themselves never seen in the tombs, may be held to prove that the ancestors of the iron-wielding Yamato were in the habit of using such weapons. We have here a connection, not only between the stone and bronze phases, but between the latter and that of iron. The absence from the Yamato tombs of bronze swords and halberds is noteworthy, but it is probable that the custom of dolmen building was indulged in to a limited extent in the early years of the Yamato invasion. The people who used bronze in the south of Japan must have preceded those who employed iron weapons. It is highly improbable that the former could have gained a foothold in Japan while the country was

held by the swords of the iron culture. It is possible that the bronze wielders came to Japan as allies of the Yamato, but in that case one would expect to find bronze as well as iron swords in the burial caves and dolmens of the latter. Nor is it likely that these bronze relics were spoils of war from the continent, for, apart from the foregoing considerations, the discovery of moulds from which the weapons were cast, proves that they were either made or recast in Japan.

The question as to whether we have here an evolution of an iron culture from that of bronze is not easily solved. As Tylor and others have pointed out, "elevation of culture is more apt to be produced by foreign than by native action. Civilization is a plant much oftener propagated than developed."* We have seen that there is some evidence of continuity of culture, but it is not quite conclusive. We shall see that there was ample time for such a development to have taken place, but on the other hand there is overwhelming testimony that some of the Yamato relics were imported from the continent, as was the later civilization of the Japanese. It will be safer, for the present, to suppose that there was some local advance, largely reinforced by novelties from the mainland of Asia.

The greater problems as to whence the bronze and iron cultures originated, where were the sources, if more than one, of the warrior hordes that carried them to these islands and by what route or routes the continent was traversed, cannot yet be definitely solved. These important matters, however, may not

* Tylor's "Primitive Culture." Vol. I. p. 53. 4th ed.

be passed by without some consideration and I propose to give a short summary of the conditions known to have prevailed throughout Asia about the time of the Yamato incursion. The word "Yamato," it may be here explained, is taken from the "Country of Yamato," now the name of a province (Map, Appendix A) but it was mentioned in Chinese records (3rd century A.D.) as the seat of dominant authority in ancient Japan. Japanese historians and archaeologists speak of the "Yamato Race." Without recognizing it as more than a political entity, we may apply this title to the people who founded the empire of Japan in contradistinction to the primitive inhabitants. We may usefully retain the term Yamato till the historic period proper, about the beginning of the 8th century A.D.

Taking for granted, in the meantime, that the influx of the Yamato began between 1000 and 500 B.C., let us look to the extreme west of Asia and follow the line of culture-advance to China and Korea. Egypt at 1000 B.C. established on the alluvium of the Nile from a hoary antiquity, still preserved its integrity and even retained pretensions to Asiatic dominion. From this time till the beginning of the present era, it was, with fitful intervals of autonomy, to pass from the hand of one conqueror to another, Ethiopian, Assyrian, Persian, Greek and Roman. The industrial and æsthetic arts had reached a high degree of perfection many centuries, in some respects thousands of years, before the first millenium B.C. The dry climate and custom of burial

* Tylor's "Primitive Culture." Vol. I. P. 53.

have preserved samples of their craftsmanship to an extent unequalled elsewhere. It will be well, therefore, to glance for a moment at this distant civilization. Though remote in space and time, the very length of the latter assures us that the light of its culture shone upon the primal upshoots of many a foreign art and craft, giving, if perhaps occasionally receiving, those increments of thought which have instinctively been called luminous ideas. Through commerce, through the observation of travellers and even through the misfortune of conquest, in the evil days that came upon Egypt, the propagation of culture to other lands was felt in China and even in Korea.

Pottery making in Egypt had not quite advanced to a level with the other arts. Yet it had long passed the primitive stage and served well the purposes for which it was used. Pottery was turned on the wheel, was baked fairly hard and was sometimes glazed. The ornamentation had reached the ultra-conventional stage, hastened by the wheel, and generally consisted of "straight parallel lines, cross lines, zigzags, dotted lines, or small crosses and lines in geometrical combinations."* Animal and human figures were occasionally introduced, but these were crudely executed. The Egyptians excelled in glass-making and were, so far as is known, the pioneers in this art. Their imitation of precious stones was so perfect that "even now we are sometimes embarrassed

* Maspero "Manual of Egyptian Archaeology. p. 256. The decoration of the Yamato pottery belongs to this category. Some of the shapes, too, such as the lenticular form, resemble those of the Yamato sepulchral ware.

to distinguish the real stones from the false.”* The varieties of design in colour, of filigree work, of moulded and cut designs is quite extraordinary, while the art of glazing and enamelling other materials was known as early as the 4th Dynasty.

In metallurgy, and especially in the formal treatment of bronze, silver and gold, the time we speak of witnessed a degree of artizanship which had attained its acme in a remoter past. “The Egyptians classified metals under two heads:—namely, the noble metals, as gold, electrum and silver; and the base metals, as copper, iron, lead, and, at a later period, tin Iron was reserved for weapons of war, and tools, in use for hard substances, such as sculptors’ and masons’ chisels, axe and adze heads, knife blades and saws.”† Bronze was forged as well as cast. Its composition varied according to the use to which it was applied. “Domestic utensils and small household instruments were mostly made of bronze.”‡ Even these show that the Egyptians from early days sought relief from the concrete facts of life by embellishment of commonplace utensils, while statuary and other objects of art whether in bronze, stone or wood can “bear comparison, for skill in design and delicacy of execution, with the workmanship of the Grecian artists.”§ The goldsmith was little behind his fellows of the present day. Filigree, cloisonné and chased

* Maspero, “Manual of Egyptian Archaeology,” p. 261.

† Ibid. P. 304.

‡ Ibid. P. 306.

§ Anderson, “Extinct Civilisations of the East,” p. 52.

work "exhibit a marvellous precision of taste, lightness of touch and dexterity of fine workmanship."*

The textile art included tapestry, embroidery and plain stuffs, the latter sometimes "as fine as the finest Indian muslin,"† though the looms were of simple construction. The decoration of leather was a fine art.

Notwithstanding the preference for hieroglyphic writing, an alphabet or syllabary was known from the 11th Dynasty, "the prototype of the letters afterwards copied by the Greeks from the Phœnicians."

The pyramids and other Titanic monuments prove that the mason was guided by a system of mensuration based on geometrical drawing and the elements of mathematics. Astronomy, too, had isolated the twelve constellations and divided the common year into 365 days of 24 hours each.

The religion was founded on ancestor and sun worship from which a pure monotheism was early evolved, though obscured by a host of minor deities.‡ Belief in a future life with return to human existence, rendered the preservation of the mortal tenement, by various methods of embalming, an absolute necessity. Though the poor had no resource but simple burial, those of wealth and high degree had tombs cut in the rock, or built of stone or brick. Here were deposited with the dead the utensils, weapons and other paraphernalia suited to his rank or station. Here, also, votive offerings were periodically made; a valid token

* "Egyptian Archaeology," p. 322.

† Ibid. P. 302.

‡ Budge "Egyptian Religion," p. 14.

of ancestor worship. These were usually broken, "piously slain," in order to undertake ghostly service; a primitive survival. Sometimes miniature or other models of utensils and imitation of food stuffs were buried with the dead.

The ancient Egyptians recognized the soothing and ecstatic charm of music and cultivated this transcendent boon to humanity. From the variety of instruments we may judge that at least they gave "tone colour" to their romantic, religious or martial strains. They included harps, lyres, guitars and other stringed instruments, flutes, single and double pipes, trumpets, cymbals, tambourines, drums of various kinds and the "sacred sistrum."*

No ethnical questions have been more debated than the origins of the Egyptian stock and culture. It is now practically settled that the pre-metallic Egyptians came from Africa and that this stock has preserved its main characters to this day. Whether we must still look to the East for the origin of writing, whether the occurrence of graphic symbols in the neolithic dolmens of Europe, and even further back in the Magdalenian epoch, does not compel us to modify the saying, "*ex oriente lux*," it is at least to the proximate east, to the civilizations of Ancient Egypt and Mesopotamia, that we must trace the childhood and adolescence of modern European and Far Eastern culture. As we are not here concerned with the question of priority, but merely with extension of culture in the latter direction, it is sufficient to remark that the common mining interest near


* R. S. Poole in the *Encyclopædia Britannica*, Vol. 7, p. 722.

Mount Sinai, the facility of intercommunication in the Mediterranean basin on the one hand, and by the Persian Gulf and Red Sea on the other, together with established land routes, suggest an advance of culture by propagation and a relatively rapid growth in those alluvial regions that were best suited to the maintenance of large communities.

Of these, the land between the Euphrates and the Tigris, from its astonishing fertility, claims an antiquity of culture, if not earlier than that of Egypt, at least as ancient, while its later civilization, despite the instability of its architecture, was probably superior. The arts of metallurgy, pottery-making and textile manufacture did not differ, materially, from those of Egypt, nor did those which ministered to æsthetic taste, but in general education and legal control it was greatly superior.

Chaldea was renowned, not only for its agricultural produce, but for the manufacture of fine textiles and other materials demanding high technical skill. Its proximity to the sea made it a base of supplies for the Phœnicians, the commercial travellers of antiquity. These daring sea rovers who "ruled the waves" when Britain was just emerging from a primitive culture, not only circumnavigated Africa and planted colonies in the Mediterranean, but searched along the coasts of Asia for the profitable disposal of their merchandise.*

* The most distant place mentioned viz. Kattigara, has not been recognised. As the Hittite (also *Khita* and *Keta*), widely known as *Khatti*, were of Mongolian affinity like the *Kitans* one may ask whether the Phœnicians did not reach a country peopled by a similar folk.

Fire and Sun worship predominated throughout Mesopotamia, indeed throughout Western Asia generally, but the ancestral manes received their propitiation. Not only were pious offerings made to the departed, but, as in the case of Egypt, the dead were buried with appropriate food and utensils and also with models of hoes, sickles, nails, axes and other tools.* “The earth fire was produced by the fire-stick, the Aryan Pramantha, the Greek Promethonos.”† The ideogram indicates “crosswood” or again, “revolving wood” like the archaic Chinese character  fire,‡ which I take to represent the vertical and horizontal pieces of wood; the twirling of the former in the latter produced fire, represented perhaps by ascending smoke.

Though Semitic blood predominated in the later Babylonians and Assyrians, there seems little reason to doubt that the Sumerian and Accadian pioneers were Turanian in race and language. So also were the Hittites, whose civilization rivalled in antiquity that of Egypt and Chaldea, and various later nations, such as the Parthians, who penetrated into the region of the five seas. At the very root of Babylonian culture it is interesting to find this link with the great Mongolian group of peoples. From the Caspian to the Yellow, the Japan and the Okhotsk seas on the Eastern confines of Asia, though debarred by the Himalayas from permanent concentration in India,

* Boscawen “The First of Empires,” pp. 105 & 113. Note contents of the Yamato tombs.

† Ibid. p. 86.

‡ Taken from the “Kan Ji Gen Ri” (Rationale of the Origin of Chinese Characters), by T. Takata.

the continent has been occupied from the remote past by a congeries of tribes and nations, whose physical characters, culture and language separate them more or less positively from the Semitic and European types.

There is no such thing at the present day as a Mongolian race, but there is a type sufficiently prevalent, which may be recognised in greater or less purity throughout eastern, central and northwestern Asia. Bearing in mind that the inhabitants of this area are generally leavened with Semitic, perhaps Negrito or other stock and that the PURE TYPE is very rare, we may summarise it as follows: head round, eye-sockets round and widely separated, fold of skin arching from upper eyelid to root of nose, which is apt to be flattened, face broad and flat, hair scanty, coarse, straight and round in sections, skin of yellow tinge, smooth and soft, stature below the average. These characters taken in ensemble, form a type whose individual items are disseminated through Asia and some over the whole world. Of all these, the most characteristic is the round eye-socket, the height of which is about the same as the length, together with the "Mongolian fold," both of them infantile characters which are present in the European, but disappear at or before puberty. The round head (brachycephalic) is of great importance, because it can, together with the round orbit, be studied in the skeleton, but it excludes the Eskimo who are markedly long headed (dolichocephalic). It is possible that the anterior projection of the upper jaw (true prognathism), observed in the Mongolian to a greater degree than in the European, is an inheritance from Negro or

Negrito ancestry. The yellow colour of the skin is common to the Mongolian and the European. During life its usually slighter degree in the latter sometimes enables it to escape casual notice, but it is always evident after death.

The Scythians, who hovered on the northeastern border of the intermarine cradle of civilization, were regarded by the later Semitic inhabitants as alien both in culture and in race. They were allied to the ancient Sumerians, to the ancestors of the present Turks (Yuechi, Hiung-nu) and to the Turkomans by their Mongolian affinities and language. Before the earliest historical period, however, they were probably a composite race. Their language was agglutinative, that is to say the words were built up, usually from a root or stem, by the coalescence of syllables, a feature of the Turanian languages, including Japanese.

Though Central Asia, as it is incorrectly named in the maps, is known as the habitat of these nomadic peoples,* they roamed across Asia from west to east and reversely, according to circumstances. "The tribes to the north of the Euxine and Caspian lived in a constant state of unrest, and migratory movements on their part, far exceeding the supposed Parthian movement in the distance traversed, are among the most certain facts of Ancient history."† The Tartar incursions into Europe and the migration, little over a century ago, of about 120,000 Kalmucks

* Between the Ural and Altai mountains, (Long. 60°-90°) hence the expression "Ural-Altaic" applied to their type of speech.

† "Parthia" by G. Rawlison, p. 30.

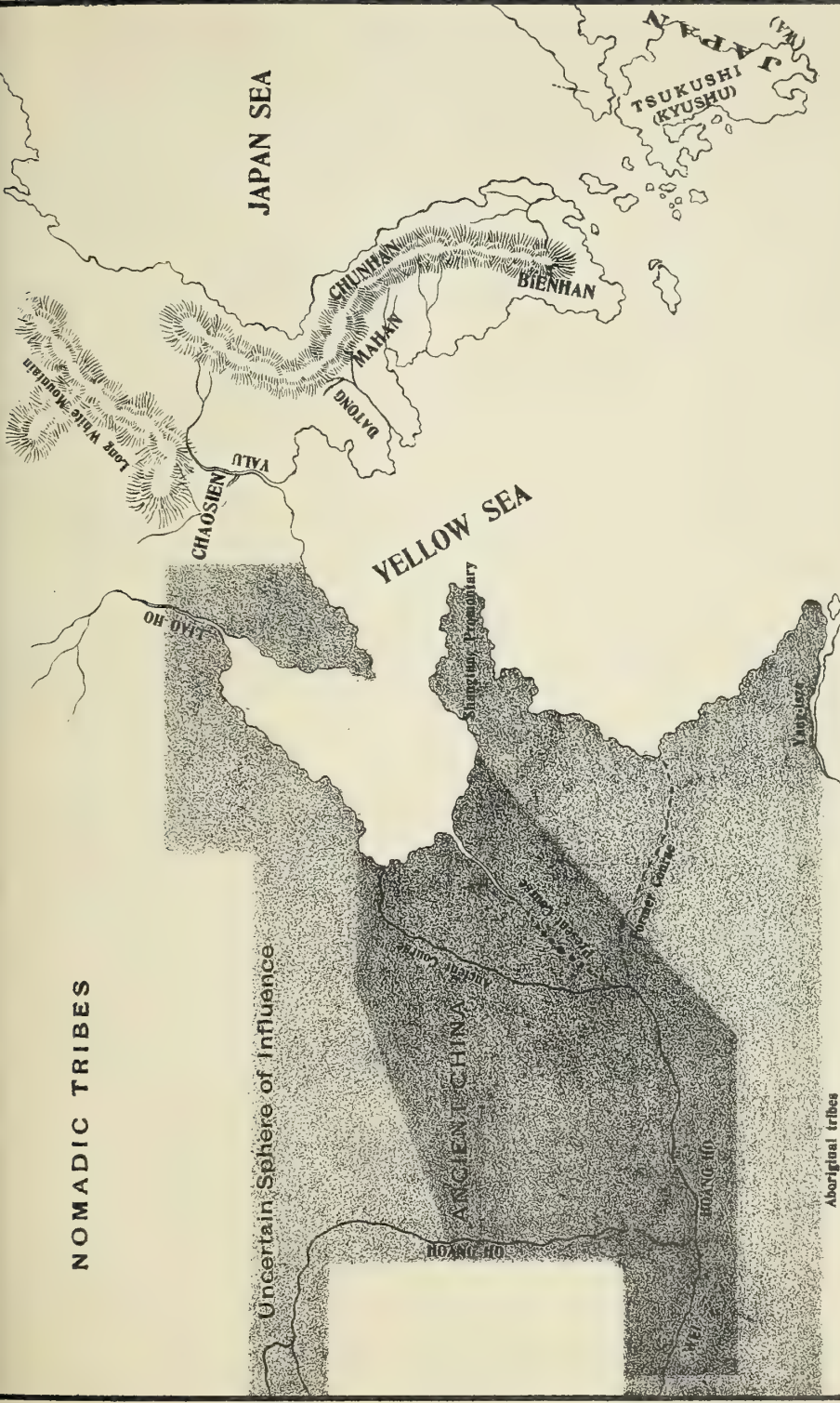
from Russia to Zungaria illustrate the possibilities in earlier times.* Roughly speaking, it may be said that between the 40th and 50th parallels of latitude Asia has been constantly traversed from prehistoric days by moving populations, armed expeditions and caravans of merchandise. It is reasonable to suppose that the land, rather than the sea route, served for the transmission of culture from western to eastern Asia, prior to B.C. 500. From the beginning of the present era both sea and land routes were largely utilized.

Like that of Egypt and Chaldea, the ancient civilization of China sprang from a basis of agriculture. The art of tilling the soil and cultivating grain not only binds mankind into communities for mutual service and protection, but it permits the development of sedentary crafts and gives encouragement to commerce by creating a surplus commodity which forms also an excellent medium of exchange.† In reclaiming land for the purpose of agriculture man thus cultivated himself. In proportion as abundance followed his toil and mitigated anxiety as to sustenance, it secured the means to gratify his inclination toward the diverting or fine arts. This abundance was found by the early Chinese settlers in the alluvial valleys of the Yellow River (Hoang Ho). Here the ancient records place the beginning of Chinese civilisation (Map .) In the mythical and legendary accounts given in the Shu King

* The number has been placed as high as 600,000.

† In Egypt, Chaldea, China and Japan, as in many other countries, some form of grain, from its abundance, its comparative durability and the ease with which it can be divided and measured, served as a medium of exchange. In Japan this function outlasted for several centuries the introduction of a metallic currency in the first year of "Wado" (Japan Copper), 708 A.D.

NOMADIC TRIBES



Sketch Map to show the Relations of China and Korea to Japan, Circa 500 B.C.

and the Bamboo Books, the essential fact of agriculture is interwoven with miraculous tales and improbable feats, but it forms the dominant theme. The early Chinese settlers were evidently not pastoral nomads, but skilled in the methods of irrigating and cultivating the soil.

With regard to the authenticity of the Shu King and the Bamboo books I follow Professor Legge in the belief that they were genuine documents,* but history in the former seems to have been selected, if not otherwise manipulated, by Confucius (B.C. 550-480) in his desire for moral reform and his effort to furnish kings with examples of high integrity and the consequences of departure therefrom. In fact, the series of books included under the name Shu King, while containing an outline of early Chinese culture, constitute a political and moral treatise, a homily to princes, in which a trenchant socialism is scarcely concealed.† There is reason to suppose, however, that Confucius took most of his information on matters of fact from older documents and that some of the precepts which run through the text are the work of previous reformers. Unfortunately the destruction of nearly all extant Chinese literature by order of Chi Hwangti, the first "Emperor" of the Tsin dynasty, in 213 B.C. and the living burial at the same time of literati, reduced the ancient classics to one incomplete

* Prof. Legge. "The Chinese Classics," Vol. 3, part 1, pp. 105-7.

† "The founding of states and setting up of capitals; the appointment of sovereign kings, of princes and dukes, with their great officers and heads of departments, were not designed to minister to the idleness and pleasure of one, but for the good government of the people." "Shu King" Legge's Translation, pp. 254-5. Vol. 3 part 1.

copy together with oral teaching from a few remaining scholars.* The later discoveries of portions of the Shu and of the Bamboo books gave solid ground for the belief that the ancient traditions and teachings were not entirely lost.

It would be beyond our purpose to attempt an outline of early Chinese history, but the following statement by one of the most gifted scholars of Chinese, is of interest :†

Early Chinese Dynasties.

Name of Dynasty	Number of Rulers	Duration of Dynasty	Remarks
" Five Monarchs "	Nine	B. C. 2852-2206	Altogether Mythical
Hia	Eighteen	2205-1767	Legendary & largely mythical
Shang	Twenty-eight	1766-1122	Chiefly legendary
Chou	Ten	1122-828	Semi-historical Kings
"	Twenty five	827-255	Recognised as historical by Sz-ma Ts'ien

Though one may question the accuracy of Chinese history prior to 500 B.C., it is scarcely doubtful that the writings handed down are substantially the same as those existing about or previous to that time. I propose therefore to cull, chiefly from Legge's "Chinese Classics," a brief resumé of the general culture prevailing before and during the days of Confucius, believing that thereby the reader will form for himself a clearer idea of the Yamato culture and the sources of its

* Prof. Williams "A History of China," p. 28.

"If the same literary tragedy should be re-enacted to-day, thousands of persons might easily be found in China who could re-write from memory the text and commentary of their nine classical works."

† "China, Her History, Diplomacy and Commerce" by E. H. Parker, p. 17.

inspiration. We shall probably not be far wrong if we suppose that a similar culture existed between 1000 B.C. and 500 B.C.; some of that recorded in the ancient classics may be the survival of a greater antiquity, while on the other hand it is not impossible that the commentators of a few centuries before our era may have mis-construed several items in the light of culture prevailing during their own time.

The importance of agriculture to the ancient Chinese may be gathered from the repeated mention of canals, irrigation, inundations and the means of "regulating the waters." The official in charge of irrigation occupied an exalted position, indeed the archaic Chinese word for "government" was a compound of two ideograms, one of which meant "satisfaction" while the other represented water, or a river. Mention is made of rice, wheat and millet.

Dress and personal adornment had reached considerable refinement. Among materials we note fine and coarse hempen cloth, three kinds of silk, various colours of silk, chequered and white silk, embroidery, strings of pearls, gems &c.

Metal working had also achieved a high position; vases and other objects have been recovered, of necessarily antique design but sometimes excellent finish. Gold, silver, lead, copper, iron and steel are spoken of. Vases and especially "tripods" of bronze were used on ceremonial occasions and fortunately have given permanence to archaic inscriptions which impart useful hints on the origin of the Chinese ideograph. Some of these tripod vases must have been of enormous size, if it be true that the Duke Gae of Ts'e was

boiled in one of them (ordeal by boiling water?).

Though it is not unlikely that metals were used for currency in China as early as 1000 B.C. and that the weight of ingots for exchange was regulated by that time, there is no authentic information, the statement to that effect having originated at a later date. Cowries are mentioned in the Shu King and the archaic presentation of the word "Huo," meaning "exchange" contains the pictogram of this primitive form of currency. A metallic token, which is believed to be a substitute for the cowrie, of which I have some specimens, is said to have been issued between 612 and 589 B.C.* In my collection there are many specimens exhibiting the transition between barter and metallic currency, such as "spade," "dangle," "weight" and "knife" money, some of which were issued before 500 B.C. Though metallic money is mentioned in the Bamboo Books at a date corresponding to 1557 B.C., it may be questioned whether much reliance can be placed upon the statement. We can only say that an evolution such as took place in the metallic issues in China previous to 300 B.C., must have occupied a considerable time.

Helmets, coats of mail, halberds, spears, swords, battle-axes, and arrowheads are spoken of. It would seem that arrowheads of stone were still in occasional use. Workmanship in metal was inferior in some respects to that of ancient Chaldea and Egypt, and naturally cruder than that of the Han dynasty (202 B.C.—221 A.D.) when the arts, literature and commerce

* "Catalogue of Chinese Coins, Including the Series in the British Museum," by Terrien de Lacouperie, p. 300.

flourished as never before. It was during the latter period that exquisite castings in bronze, in the shape of mirrors, reached Japan, though learning did not follow till this dynasty had succumbed.

If insufficient for exact chronology, the Astronomy of the ancient Chinese, founded on that of Chaldea, was less backward than has been maintained by some writers. It involved a fair knowledge of mathematics; instruments such as the "gem adorned turning sphere" and the "gem transverse tube," were employed, probably for astronomical observations. Measures of length and capacity, regulated taxation, asylums for the aged and an Imperial College are referred to, while each department of government had its responsible officials.

Heaven, in an abstract sense, had begun to replace the worship of the heavenly bodies before 500 B.C., but these and especially the sun, were not entirely superseded, nor are they yet. The references to ancestor worship are numerous and show that this still prevailing religion was utilised to uphold a beneficent morality. It is indeed a matter for deep reflection that the refined and unsurpassed system of moral instruction, elaborated by Confucius and his followers, but certainly well advanced before his time, should have been perfected nearly five centuries before the Christian era, anticipating even the teaching of Buddha. The claim of departed ancestors upon the attention of the living being generally acknowledged, a becoming outfit was provided for the dead. Not only was much consideration given to the obsequies, but offerings were made and rites held at stated

periods and whenever occasion called for inspiration from those who had "gone on high." Grave, cave and mound burial were practised and tombs were also built of stone. So far as I am aware dolmens (*dol*, a table and *maen*, a stone) in their proper sense of megalithic chambers roofed by a single huge stone, are very rare in China. They are, however, not common in any part of the world, the difficulty of transportation being immense. It is more usual to find such chambers covered by two or more large stones and frequently many lesser ones have been used; the roof becoming of vaulted or conical shape. Such chambers are naturally more liable to destruction, not only from their less stable construction but because they offer greater temptation for wall building &c. If we consider the great age of the agricultural civilization of China and the tendency of tillage to destroy tumuli and expose underlying dolmens, it is conceivable that most of these have disappeared. At any rate the Chinese mausolea, and even the lesser stone tombs still extant, are lineal descendents of the dolmen and some bear a close resemblance to these megalithic tombs which stretch from Ireland to Japan. Prof. Y. Miyaki has called attention to the human figures in stone which were erected in ancient times within, or upon, the graves of Chinese monarchs. This is a survival of funeral sacrifice and probably furnished an example for the corresponding custom in ancient Japan.

The pictographs upon which the Chinese characters are based, were in use at least 2000 B.C. and a study of them affords much material for the student of

archæology and ethnology. Prof. de Lacouperie based on these and other considerations his view that the Chaldeo-Elamite civilization was the fountain-head of early Chinese culture and that the agricultural settlers in the region of the Hoang Ho came originally from south of the Caspian.

The Semitic element in the present Chinese betrays an origin in western Asia, though it is perhaps premature to give an exact locality. Writing on reed* or bamboo was probably common to both the Chaldeans and the early Chinese. In both cases, the change from the pictorial to the conventional type of ideograph arose from a difference in writing material; cuneiform strokes caused by the square stylus on soft clay, square characters encouraged by the use of a brush on textile or paper. In both instances also, we may trace the effect of "economy of time" in the substitution of hastily formed symbols for the laboured picture writing of an earlier age. In Egypt the stone inscriptions retained, for the most part, their pictorial character, not merely because they are more ancient, but for the reason that stone carving does not encourage speed in writing, while the papyrus lent itself readily to pictorial forms. In Egypt, education was not so general as in Chaldea, but it is perhaps not wrong to guess that outside of official purposes, alphabetic writing was more in vogue than its vestiges seem to indicate. The fact that it was seized upon by the Phœnicians as a medium for mercantile transactions is suggestive. The writing of the early Egyptians presents "many very striking

* "The sign *gi*, the determination of the reed class, is also used for books, letters &c." Boscauwen, op. cit. p. 53.

points of resemblance" to that of the Sumerians.* So far back as 4000 B.C. the Sumerian writing was more advanced than the archaic inscriptions of China, though the cuneiform or wedge shaped characters were not established till about 2500 B.C. Among the ruder peoples surrounding this centre of culture the primitive forms might have persisted to later times; possibly the uplands of Elam, whence the Babylonian writing is supposed to have originated, may have slowly diffused its germs of learning towards the tribes outside the pale of Mesopotamian civilization. Thus the cradle of Chinese culture may have been either common to that of Chaldea, or quite excentric to it. The isolated characters on the Yamato pottery and the rare inscriptions on the tombs resemble, as we shall afterwards see, the early writing of China, but present also some points of difference which may be fundamental. In its writing, its astronomy, its religion, its industrial arts, and especially its system of irrigating canals, the culture of early China is derived from that of western Asia.†

In the pleasing arts, and especially in music, the Chinese of the Shu King and the Bamboo Books had reached some proficiency. We read of the "eight instruments of music," the sounding stones, the six pitch tubes, the calabash organs, the lutes, the flutes, the bells, the drums and the hand drums. One of the earliest monarchs is said to have composed a piece of music called "the answer to the clouds," and the

* King "Assyrian Language," p. 7.

† It is curious that the expression "black-haired people" should have been applied to themselves by the inhabitants of both Chaldea and China.

delights of music are warmly referred to. "Poetry" is said to be "the expression of earnest thought, singing the prolonged utterance of that expression." Again, it is said of music "how do its rolling sounds thrill, how does it inspire the dance?" Pantomimic dances especially played an important part in the social and religious life. Conviviality was heightened by the use of alcohol; yeast and malt are mentioned in connection with the making of "sweet spirits."

These few remarks upon the condition of civilization in China previous to the advent of the Yamato in Japan, may help us to form a truer estimate when we approach the consideration of the latter culture. We shall note some features of resemblance and some of dissimilarity. We shall detect some inheritance apparently, from China or from a source common to the Chinese and the Japanese; some borrowing of culture will be evident. But there will still remain some features distinctly unrelated to China, in language, mythology and customs. If it be premature to hope to unravel these, we shall at least have the satisfaction of isolating them. Possibly some light might be shed on the origin of the Yamato people, if we could rely on the statements in ancient Chinese history. Much might be said, much has been said on this topic; but apart from my unpreparedness for such a line of investigation, the authenticity of Chinese history previous to 1000 B.C. is not sufficiently established for us to rest conclusions upon it.

Between China and Japan there is the Korean peninsula and the narrow belt of sea already mentioned.

About 1000 B.C. Chaosien* extended between the Liao and Datong rivers, including the present Liaotung peninsula and part of modern Manchuria (Map .). The remainder of the peninsula was inhabited by many tribes or petty kingdoms. Without accepting as strictly accurate the statements regarding the early races of the peninsula which are found in Chinese history, some of them strikingly correspond with primitive characteristics elsewhere, and were probably recorded from observations on these and kindred peoples. Among them we note:

1. Pit dwelling.
2. Scanty clothing, though cotton, silk and hemp are mentioned later.
3. Worship of ancestors, tigers, trees and heavenly bodies.
4. House burial; construction of new habitation elsewhere.
5. Flattening of infantile head by pressure.
6. Prohibition of marriage by persons of the same family (totem or name).
7. Agriculture, denied in some localities.

A state of society corresponding more or less to the above, a miscellaneous gathering of tribes, and perhaps races, became subject to the domination of adventurous and nomadic hordes from China and beyond. Throughout all Asia the result of defeat meant decimation, slavery, or abject submission. Those who were fortunate enough to escape, before or after contact with a powerful enemy, took the direc-

* Still the official title for Korea (Japanese, Chosen), but ordinarily called Gori (Korea).

tion of least resistance and settled wherever the location seemed favourable and occupation was not too strongly opposed. Just as in modern times the conquest of America was carried out by a few adventurous spirits aided by superior arms and discipline, so the warriors who entered this Land's End of Asia, had probably little difficulty in holding their settlements against the native inhabitants. This was probably facilitated by racial kinship and mixed progeny, and by the tendency of early eastern agriculture to choose the comparatively restricted alluvial plains, rather than to claim at once possession of the uplands in the interior.

It is said that Kitsu, a younger brother of the founder of the Chow dynasty of China, emigrated (or fled) to Chaosien with five thousand followers and established there a kingdom with just government and enlightenment about the beginning of the 11th century B.C. He is supposed to have taught the people various arts, medicine, divination and literature. The statement is euphemistic and may be apocryphal, though it is not necessarily incompatible with the fact that the Yamato invaders of Japan had no literature and little, if any, use for writing. It is barely two centuries since the highlanders of Scotland were an almost illiterate people and were in a state not far removed from barbarism, though civilization was close to their doors. It is, moreover, not improbable that some of the districts south of the Datong river were colonised by Turanians, Tungusic tribes and settlers from outlying parts of China. If these were able to preserve their independence up to the time of the Han dynasty, they

probably did not feel any great desire for Chinese learning.

About the 5th century B.C., or a little later, the numerous clans south of Chaosien were gathered into three groups or nations called respectively the Mahan, Chunhan and Bienhan. It is supposed that each was more or less under the control of a central government which encouraged agriculture, sericulture and other arts not indigenous to the country. Mahan and Bienhan occupied territory to the west of the peninsular backbone of mountains. Mahan lay opposite the coast of Shangtung and Bienhan farther south. Chunhan faced the coast of Japan, but it is not known whether it extended to the southern extremity of what is now Korea. It is said to have produced iron in 300 B.C., but the ore was mined in the vicinity of the Long White Mountain and manufactured in China and Chaosien more than a century before this.

The Korean peninsula formed a *cul de sac* into which poured the overflow from the turbulent cauldron of early Asiatic civilization. It may be that the armed state of Chaosien prevented egress at the time we speak of, but to those who dwelt in the south of the country, the island of Tsushima visible from the shores formed an alluring prospect, drawing them across the sea to Japan, the land of plenty. We need not suppose that the Yamato incursion took the shape of an extensive invasion. We shall find reasons for the belief that this process occupied a considerable time, that enemies were encountered, in the shape of other aliens and aborigines, that small tracts only of alluv-

ial country were primarily held and that it was by amalgamation and the slow process of generation, as much as by superior military conditions and reinforcement from the mainland, that the Yamato immigration achieved a national status in Japan.

Wherever history has been written we find victorious nations seated on the land formerly held by people of a lower degree of culture. The early accounts of the Egyptians, Hittites, Chaldeans, Chinese and Koreans refer to these former populations, who were generally regarded as aborigines, a word of questionable utility in our present state of knowledge. In Japan the early legends, later traditions and protohistorical statements refer again and again to the FOREGANGERS in terms at first of something like equality, but later of contempt. This change of attitude is not without significance. It implies that the primitive people were able to offer strong opposition in the early days of invasion and may be taken to indicate that the difference in culture status was accentuated mainly by propagation of culture to the Yamato from the mainland of Asia, gradually taking place during a long interval of time.

Topography moulds history. The alluvial plains of Japan drew the Yamato on, even to the inclement north, while the open communication at their back continued to supply the pabulum of culture from which the primitive population were debarred. Not only were the Yamato, in virtue of their position, able to receive increments of culture from western, as well as eastern Asia, but the higher purpose of agriculture, by giving support to stationary communities and

co-ordinated labour, encouraged those social relations upon which progress depends. It was inevitable that it should prevail over the primitive life, where hoe cultivation is a feminine accomplishment.



PART I



THE PRIMITIVE CULTURE

CHAPTER I.

PALÆOLITHIC PHASE.

I shall presently show that there is a striking resemblance between the stone implements of Japan and those found in the primitive sites and alluvium of Europe and indeed of the world generally. The implements sharing this resemblance are ground or chipped to a definite finish that could only be the outcome of long experience and transmitted knowledge. They indicate a comparatively advanced degree of craftsmanship. In Europe implements of this kind, from their superficial position, naturally came under notice before those in deeper strata; the uniformity of their finish countenanced the notion of a uniform culture. They were the working tools of man during the "stone age," but none suspected that they were the culminating result of a vast series of efforts. The achievements of early man were regarded as the content of an epoch, rather than as a phase of evolution.

These relics, however, indicate, not the infancy but the maturity of primitive culture. The recovery of rude implements from caves and the river drift proved that a stage more truly primitive had prevailed on this planet, long anterior to that of the finely chipped and polished tool. The general verdict of geologists and archæologists is that most of these rudely shaped

stones are the work of man and testify to his presence throughout the whole of the Quaternary era and at least the Pliocene of the Tertiary. The antiquity of the implements and of their makers can find expression only in terms of geological change.

The "stone age" was thus found to present two unequal aspects, an older or Palæolithic, characterised by roughly flaked tools, found in older strata, and a newer or Neolithic, known chiefly by the finish of its implements, which are smoothed or chipped, sometimes almost to a finical degree, and are found in recent deposits. In Japan, as in Denmark, however, implements of very rough finish are found in the neolithic beds. They are so frequent in the former country that the impression has been created in Europe that a palæolithic culture existed here. In view of this it is perhaps not parading an obvious truth to assert that crude finish does not necessarily imply a palæolithic tool. We may regard these implements as survivals of the palæolithic phase, but the question of age is a geological and not a technical one. There are points of difference between some of the palæolithic and the ruder neolithic tools, but these have merely an empirical bearing on the question of age. If we use the word palæolithic in its original sense, we must judge its content by the geological record. If we stretch it to include a certain type of culture, we must judge this culture by its general associations. In Japan, where these vestiges are found in recent deposits, nearly always with pottery and usually with advanced implements of polished stone and bone, it cannot be maintained that they belong to a palæolithic age or

culture. I shall refer to this when discussing these implements in detail, but would point out here that they are also associated with natural stones which bear evidence of use and the employment of which has survived from an infinitely more remote past.

If human culture is a growth from a state of nature, a stage earlier than the palæolithic must be inferred, during which there came upon a being which we may call man, the idea of taking sticks and stones from his surroundings and using them, at first as they came to hand, for missiles and tools. The splits of disintegrated rocks could be utilised without modification for splitting, sawing or boring wood. We may call this the "Protolithic phase." To us, the step from the simple choice of cobbles or sharp stones, to the trimming of these with a definite object in view may not appear immeasurable. But when we consider the geological periods that intervene between the early palæolithic and the neolithic, when we try to realise the mental status appropriate to such elementary artizanship, it becomes apparent that the prior stage might have occupied an immense period of time. Unfortunately it is almost impossible to recognise these earliest tools. Should human remains ever be found in immediate contact with fragments showing signs of use, one might succeed in identifying them as the most primitive implements of man. At present we must admit that at the very point where it would be most instructive to fix a limit to human endeavour, the evidence dwindles down to nothing. One can only point to the presence of natural stones in

the neolithic sites, where their use is beyond cavil, as a survival of employment by the pioneers of humanity.

In the early summer of 1905 I observed that the breccia of conglomerate, in the basin of the Hayakawa and elsewhere, sometimes resembled in its fracture that of the eoliths or cruder palæoliths found in Europe and America. Observations in France and England have shown that this appearance, including the "bulb of percussion," formerly believed to be an infallible sign of human manufacture, might be due to the mutual concussion of pebbles when rolled in the bed of a rapid stream. W. H. Holmes has also pointed out,* that many of the so-called palæoliths found in the United States, are merely rejects from a primitive tool factory. In the valley of the Sakawagawa, during the same summer, I removed from a cliff a few tons of drift gravel among which I found the stones here illustrated. Nos. 1, 2, 3, 4 and 6 I took from the gravel; No. 7 from the red clay immediately overlying the gravel, at a depth of 14 feet from the surface, and No. 5 from the conglomerate rock of the Hayakawa. In the case of flint implements, the comparative ease with which flaking can be carried out renders the evidence of design less difficult to decipher than in the case of igneous rock, of which these are made. These specimens are therefore not sufficient to definitely establish the existence of palæolithic man in this

* "Stone implements of the Potomac-Chesapeake Tidewater Province," 15th Annual Report of The Bureau of Ethnology. Holmes observes, however, "Contrary to statements repeatedly made by writers on the subject, the question of the existence of a palæolithic period in Europe is not believed by me to be in any way involved." p. 15.

Fig. 3.



Stones from drift gravel.
(Half size.)

country, though I venture to think they are suggestive.

My excavation was too limited to ascertain the co-existence of animal remains, but the bones of Tertiary (post-Miocene) mammals have been found in the gravel.* These include the *elephas primigenius*, *elephas Namadicus*, *stegodon Clifti*, *stegodon insignis*, and unnamed varieties of bear, deer, bison, ox, horse, rhinoceros and whale. During the Tertiary period Japan must have been continuous with the continent of Asia and it is highly probable that Java occupied the same relation to the mainland. Significant is the discovery, in the upper Pliocene of Java, of a cranium of the lowest type that can be classed as human, the *pithecanthropus erectus*. These primitive offshoots from the anthropoid into humanity probably roamed along the coast of Asia and we may be sure that Japan received her quota in protolithic times.

Whatever be the propriety of using the terms, protolithic, eolithic, palæolithic and neolithic to indicate various grades of progress during the premetallic era it is evident that the expression "stone age" has outlived the notion of a uniform culture. The phases represented by these terms must be carefully guarded against the assumption that any one of them was a uniform culture process. Within each there has been advance by unequal gradations, by leaps as well as by steps. These stages themselves have been coeval as well as consecutive; it is but a few years since "palæolithic man" disappeared in Tasmania.

* "Outlines of the Geology of Japan." Compiled by the officials of the Imperial Geological Survey of Japan, pp. 84-5.

Whether man has physically advanced by "mutations," by occasional great, as much as by continuous small variations, is a question that the geological record has yet failed to answer. Of one thing at least we are sure; that both with regard to culture and physical change, the content of the "stone age" is an EXCELSIOR. In the twilight of receding time we discern the footprints of ascending humanity.



CHAPTER II.

NEOLITHIC SITES.

A list, published by the Imperial University in 1900, records about three thousand five hundred sites, but more than four thousand are now known. This number cannot represent all the primitive settlements which formerly existed. Apart from these sites, traces of neolithic culture abound in many parts of these islands. This is particularly the case in the Kwanto,* where they are strewn over the country side, so that a few hours walking, in almost any direction, will be rewarded by the discovery of potsherds, or implements of stone. These remains have been disinterred by agricultural operations, and bear witness that a widespread primitive population had been settled during a considerable period. They also suggest that an estimate, based on the frequency of ascertained sites, may be far from accurate in regard to districts which have been long under cultivation. From the great number of sites thus far discovered, the activity of Japanese archaeologists may be inferred. The results have been fruitful but it is to be hoped that funds will be forthcoming for a more systematic exploration. It is not enough to scratch the surface

* A group of 8 provinces viz. Sagami, Musashi, Hitachi, Awa (Boshu), Kazusa, Shimosa, Kotsuke and Shimotsuke.

of these interesting monuments. Exploration by deep section, such as I have lately attempted to carry out, ought to be undertaken in every province where these remains are found. One or two would be sufficient for each province, a precious record thus being obtained for future reference.

The sites are very much more numerous in the northern than in the southern half of Japan. Taking the published list of 1900 as a basis, and working out the number of sites to each hundred square *ri** of territory, I find the average to be 24 per hundred *ri* on the north of a line drawn through Ise and Ōmi provinces, (Map, Appendix A) while it is only 4 per hundred *ri* to the south of this line, including the great islands of Shikoku and Kyushu. In Yezo (Hokkaido) there are only 3 per hundred *ri*, so far as ascertained, but this island is still largely covered by forest and unreclaimed land. It is possible, therefore, that many sites here await discovery; on the other hand there are reasons for the belief that a large proportion of the primitive inhabitants had lost the higher neolithic culture of their ancestors before they were driven to concentrate in the island. The art of pottery-making had considerably degenerated and reversal to the restricted role of the hunting life must have had a deteriorating influence on the surviving natives.

In Honshu, (main island) north of the provinces of Ōmi and Ise, there is still a good deal of unreclaimed land, so that further excavation may yet reveal many more sites. To the south of the Ise-Ōmi line,

* 100 sq. *ri*, roughly=500 sq. miles. It will be understood that the above is merely a provisional estimate.

the land has been occupied for a longer time and the population is greater. The number of sites may therefore be less liable to alteration.

The extent of mountainous, or at least unreclaimed land is a factor of some importance in estimating the probability of future finds. High land in the interior must have been less inviting to primitive man than that bordering on the sea; it was presumably occupied mainly through stress of conflict or competition. As a rule, to which there are one or two notable exceptions, such districts contain few remains.

In the map, I have indicated approximately the number of primitive sites per hundred square *ri* for each province of Japan. The alluvial plains, with plateaux and hillocks to the height of 300 feet, occupy the green areas. Heights up to 3,000 feet are in red; above this, in darker red. The gradations are not shown, nor are the lesser valleys, but the result is sufficiently correct for a rough survey, which is all that is possible at the present time. It gives us some idea of the relation of elevation to the number of sites, and, by inference, as to the density of the primitive population in these various situations. By the map we can see that the neolithic culture flourished in the neighbourhood of the sea. The alluvial plains, rather than the mountainous interior, were its favourite locations. Exceptions to this rule will afterwards be noted.

The sites are but rarely found quite at the present sea level. They are usually situated on slight elevations, from about 30 to 300 feet in height, though occasionally less and sometimes more. The favourite location appears to have been on a low plateau, or

gently rising ground in the vicinity of an estuary or bay. They are frequently found on the summit, but sometimes extend down the sides. They are sometimes placed on the lower declivities facing the shore.

The sites vary greatly in depth. In the Kwanto they are said to have generally a depth of from one to eight feet in the shellheaps and three or four feet in the soil outside the heaps. The thickness of the shellheaps affords an unreliable criterion as to age. In one of my excavations the shells were fully 12 feet in depth.* These kitchen middens are so frequently formed of refuse thrown down a declivity that the depth varies greatly according to the position. It is only when sites are found on level plateaux that the depth gives any reliable indication. In the course of my excavations at the hamlet of Mitsusawa, near Kanagawa, I have come upon coarse pottery imbedded a few inches in the red clay (not in a shellheap), at a depth of no less than eight feet from a LEVEL SURFACE. This indicates a greater antiquity than has hitherto been suspected, but unfortunately no exact estimate can be made. In other less reliable situations the character and declivity of the upland will manifestly contribute to alterations of depth, while the climate, earth tremors, distribution of earthworms and other considerations, combine to furnish elements of doubt. Such observations have therefore merely a relative value. In some places, where the soil lies thinly on a rocky base, it is evident that the sites cannot vary much in depth. I understand that

* I have made several excavations where the shells were 8 ft. in depth. In the province of Ise a layer of 20 ft. thick was discovered.—T. J. Z. No. 20.

it is the general opinion of Japanese archaeologists that the depth of the remains in the Hokkaido is less than in the middle and southern districts of the country. In the absence of systematic excavations, however, this point may be held in reserve.

The pottery in the south is somewhat more crude than that of the Kwantō and the latter is less refined than that of northern Honshū. It would appear, therefore, to be older in the south.* In the Hokkaido (Yezo) the pottery is scanty and usually coarse, but the occasional presence of wooden and iron utensils points to a degeneration of the art and to recent use, rather than to a beginning in the north.

Professor Milne, no less than 25 years ago, made a praiseworthy and ingenious attempt to estimate the age of the great site at Ōmori by reference to the rate of deposit in the higher portion of Tokyo bay.† He prepared a map which showed the rates of the deposit of silt from Asakusa to Takanawa during four periods, from A.D. 1028 to 1879. The measurements were taken from old maps which were believed to give a rough indication of the increase of land.

According to these the rate of advance varied in different situations from 38 to 2 feet per annum. The minimum rate, at Shiba, was the outcome of the diminished suspension of matter in the waters of the Sumidagawa (river)‡ at this spot. According to the

* The celts and arrowheads do not exhibit any great disparity, but stone implements are naturally less liable to change than the quality and ornamentation of pottery. In the Kwantō, polished tools, though not less numerous than in the south, are greatly outnumbered by those which are roughly flaked into shape.

† T. A. S. J. Nov. 11th, 1879.

‡ I have placed these rivers on the map, Appendix A.

map, the deposit at Takanawa was rather less than one third of that at Shiba, say, 8 inches. Professor Milne assumed that the relation of the Ōmori site to the Tamagawa (river) was not very different from that of Shiba to the Sumidagawa, but that, if anything, the rate of deposit in the former situation should exceed that of the latter. Estimating, however, the advancement at Ōmori as one half that at Shiba, that is to say, 1 foot per annum, and measuring the distance from the shellheap to the shore, he came to the conclusion that it could not be more than 2,600 years old.

The actual advancement ascertained by official measurements, during the last 15 years is, I understand, about 3 inches per annum. On the assumption that the Ōmori site was originally close to the beach, a 3 inch extension of deposit per annum would give an antiquity of over 10,000 years. Even if we admit the improbability that the site was then on the beach, if we suppose that it was half way, there is still facing us an antiquity of 5,000 years.

With regard to this site, I may mention that the Tōkaidō (Road of the Eastern Sea) occupied its present position near the shore at least three hundred years ago. This highway, at a point nearest to the Ōmori site, passes alongside of the well known *shikei-ba*, or execution ground, known as *Suzu-ga-mori*; here the road skirts the shore; at high tide the sea laps its wall and occasionally flows over it. I followed this road for 1,600 yards, to about the commencement of the delta of the Tamagawa. For that distance the sea is almost constantly within a few yards at high tide, though at low tide the shallows indicate a process of

elevation. Had the deposit been going on at the rate of 1 foot per annum, there should have been an interval of 100 yards between the road and the sea. Without knowing the original proximity of the site to the sea, it seems a hopeless task to determine its antiquity by such considerations.

The neolithic sites in Japan are usually divided into shellmounds and strata of ancient remains (*Ibutsu hoganso*). Pits are commonly referred to under a separate heading by Japanese archaeologists, and so are caves. Up to the present time no reliable evidence connects cave dwelling in Japan with the primitive culture, though it may exceptionally have occurred. Pits are connected with both the neolithic and Yamato cultures, and will receive some notice when we consider the primitive dwellings.

The separation of sites into strata and shellmounds is of questionable value. The word "stratum" does not properly describe the disposition of these remains. Though usually covered by a layer of soil, they are found at varying depths in the same site. Occasionally they are imbedded in the red clay, but this compact foundation is seldom penetrated. Shellheaps exist in about one-tenth of the known sites, but it is quite certain that many of them have disappeared in the course of agricultural operations. As the sites near the sea have almost surely had shellmounds, and as these localities are most suited to rice cultivation, which is usually accompanied by other cereals on the rising grounds, it follows that they were very liable to destruction. Comparing the sites on either side of the Ōmi-Ise line, (see map) I find that in the south-

west the shellmounds number only about one per cent in four hundred sites, whereas in the north they number about ten per cent in over three thousand sites.* Where shellheaps are contiguous, however, or where they are approximately so, it is probable that they are frequently classed as one. They are the refuse heaps, the kitchen middens of the neolithic culture. These middens contain animal bones and other residua of the daily life, such as broken pottery, and, usually, discarded or useless implements of stone. The soil interspersed between the layers of shells, or sometimes between the shells themselves, is partly composed of the inorganic constituents of other material which had failed to withstand the ravages of time. The durability of shells, like that of stone implements and pottery, has attracted attention to them, but they formed merely a modicum of the refuse thrown to the kitchen midden. I regard the shell-mound of Japan, as merely a significant accompaniment to the neolithic SITE. The latter is a better expression than "stratum," for it is sufficiently descriptive and does not imply too much.

The term '*Kaidzuka*,' which literally means shell-mound, is of ancient origin. It is mentioned in the *Hitachi Fudoki*, (Hitachi Provincial Records) which date from 715 A.D. The myth then current was that a giant living on a hill stretched out his arm to the beach and picked up the shellfish lying there. His foot-print was said to be thirty steps in length. Possibly certain

* According to S. Yagi, shellmounds are most numerous in the Kwanto, getting gradually fewer toward the Southwest and North. "*Kōkogaku Kenkyū Ho*," (The study of Archaeology).

depressions in the ground, which were also referred to, might have been vestiges of pit dwellings.

Until the eighteenth Century these heaps were vulgarly supposed to have been the abodes of giants, or (by the rational explanation) ancient sea beaches. The stone axes from these heaps, or other sites, were known as *raifu*, (thunder axes), just as similar relics in Europe were called "elf bolts," or "thunder stones." Obsidian, from which arrow-heads are frequently made, was formerly called "excrement of the stars." When recent these heaps must have attracted a good of attention. The shells were sometimes used for making lime; they have also been scattered during the tillage of the soil. I have already remarked that the destruction of sites is brought home to us in the Kwanto, where, in the numerous heaps of stones thrown out of the field, the observant eye will frequently discover the relics of primitive culture, though shellmounds may be absent.

The shellmounds vary greatly in size. Occasionally there is only a patch of about a yard square, but areas of 200 and sometimes 500 square yards, or even greater, where shellheaps have coalesced, are found, thus attesting the proclivity of neolithic man towards a diet of shellfish. Professor Tsuboi, in a recent number of the Tokyo Anthropological Magazine, states that there are 269 shellheaps in the six provinces of Sagami, Musashi, Bōshu, Kazusa, Shimōsa and Hitachi, in a total of 1,232 sites, an average of 22 per cent. The shellmound is usually placed within moderate reach of the sea. Though there are some apparent exceptions the deposit of alluvium has, in

most cases of this kind, increased the original distance from the site to the estuary near which it was originally situated. In the interior high-lands, had the means of purchase been available, the weight of shellfish in proportion to its nutriment would have rendered its carriage precarious in days when "embalming" was unknown. Up country, the primitive population must have subsisted by hunting, stream fishing, plucking fruit and leaves, and the digging of roots, eked out, perhaps, by a little hoe cultivation and barter with their conquerors.

So far as my experience goes, the largest and richest shellmounds are found on the northern aspect of the sites. It may be that here the dwellings of the upper class were situated, the north being the position of preference and of honour in later times. The attached middens here accumulated on the north side of the declivity, away from the entrance to the abode. The effluvia in winter would thus be scarcely noticeable, while in summer the prevailing wind from the south would be free from odour. Whether this was a desideratum one cannot say, but certainly in my limited experience, the most extensive, and especially the richest, shellheaps have been to the north of the sites. Figure 9 shows a section from one of my excavations, where the deposit of shells on the northern declivity is seen.

The shells found in the primitive sites of Japan were first studied by Prof. Morse. Prof. A. Oka has kindly sent me a list of those known at the present time. This will be found at the end of this work* (Appendix B).

* He has described and illustrated many of these in No. 108 of the T. J. Z.

These gentlemen have expressed the opinion that a difference obtains between some of the shells from the primitive sites and those existing at the present time. This would vaguely indicate a considerable antiquity, but it should be remembered that some of the molluscan fauna have shown a surprising capacity for change of character within recent times.

When I first began to dig in these shellmounds, I was astonished to find that so many of the bivalves were closed. The most frequent instance is that mussel favoured by the Japanese and called by them *Hamaguri** (*Cytherea meretrix* Linn.), next comes the cockle or *Shishigai* (*Arca granosa* Linn). As a rule, broken shells are found in excess only when mixed with earth, or where water has percolated, with the exception of those which are very fragile, such as the razor fish, or *Mate* (*Solen Gouldi* Conrad). By piecing together the fragments I ascertained that many of these broken bivalves had been deposited while closed, or in close contact, and it became apparent that many of the unbroken valves were also in immediate contact, though not perfectly adjusted. The edges showed practically no sign of having been forcibly opened by an implement of stone. There being so little evidence of fracture,† I came to the conclusion that the primitive people had usually opened the shells by boiling them. The Japanese still, when making *Hamaguri* soup, prefer to put the entire shell into boiling water, under which condition the living animal opens its

* I give the Japanese names, as they are more specific than the English equivalents.

† Worthy perhaps of note in connection with the supposed use of certain stones, as crushers of shells.

shell, to be immediately killed. Those which remain closed are regarded as doubtful and are not partaken of. One felt inclined to speculate whether this might not have been one of the sources of the ordeal of boiling water, recently persisting among the Ainu.* Whether or no, it is evident that the most fastidious person could scarcely reject so great a proportion of shellfish as one encounters, in the closed state, in the shell middens. If we include with these, the large number of paired valves which, though not coapted, are found together, in which case there is the highest probability that they were not thrown down in a separated condition, the proportion of shells originally discarded in the closed or paired condition would be, in some shell-heaps, as much as 20-30 per cent, and occasionally more. Making due allowance for the fact that most of these shellfish were taken from shallow waters where an ebb tide might in summer yield a big harvest with a large percentage of dead molluscs, it is apparent that these closed shells were not all rejecta from the primitive kitchen. It is certain that these shells were thrown on the heap before the destruction of the ligament which attaches the bivalves at the dorsal hinge; of 40 shells (coapted, but without the ligament) which I gently threw on rather soft ground only 3 remained closed, and not one *Hamaguri*, while the valves of nearly all separated to some distance apart. Moreover, a fair proportion of the closed shells contained smaller ones, fragments, stones, ashes, charcoal, &c., in their interior, which must have been

* In one form of this ordeal, the whole body was slowly heated in a huge pot, till suffering caused the expected confession.

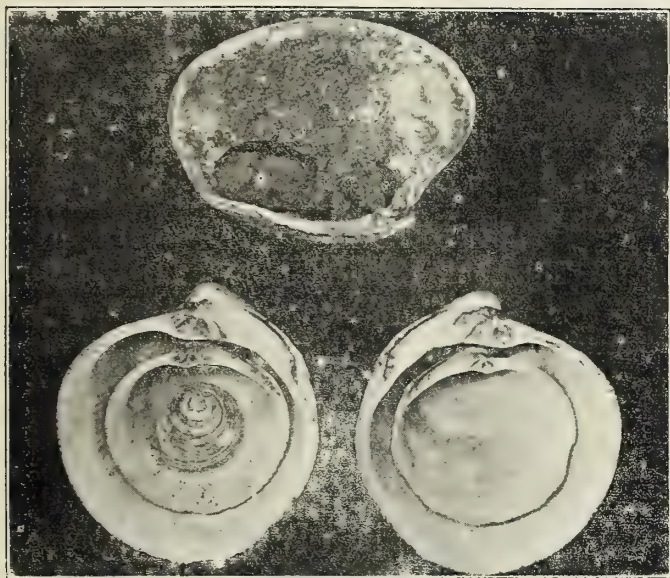
introduced (with the possible exception of earth and ashes), while the shells were open. We come to the conclusion, then, that many of them were thrown on the midden while the ligament was still holding the valves together, that those shells which landed on their backs or sides were in a favourable condition to assume a smaller angle, in which condition pressure from almost any direction would result in complete



coaptation. We are also justified in assuming that the bivalves were thrown on the heap soon after the meal, for although boiling for fifteen minutes usually leaves the ligament intact while longer cooking makes the meat too tough, yet the boiled ligament loses elasticity and becomes so brittle when dried that slight handling will snap it altogether. In all likelihood the univalve, voluted shells were also boiled before extraction; so far as my experience goes, only the larger shells, such as the *Akanishi* (*Rapana Benzoar* Linn.) the bulk of which in proportion to its contained nutriment renders it not very suitable for the pot, are purposely broken.

Though I venture to think this explanation is simple and rational, yet it is possible that some of the bivalve shells were not opened at all, or were partially closed after emptying. The interesting specimen, Fig. 4, shows a *Kishago* (*Globulus Costata* Val.) within an *Iseshirogai* (*Cyclina Chinensis* Chem.), which is again enclosed by one of the same species. I came upon these in a mixed stratum of shells and still hold to the belief that the probability of their assuming this relation by accident is considerably less than the likelihood that it was brought about by human agency.

Fig. 4.



Cyclina containing shells and *Mactra* with ashes and stones.

To this day, the Kishago is a favourite plaything with Japanese children in games of make believe. Pathetic is the thought that little hands may have dallied with these shells, that a hundred generations back they were linked to the simple pleasures of childhood and gave to life's opening day a gleam of joy.

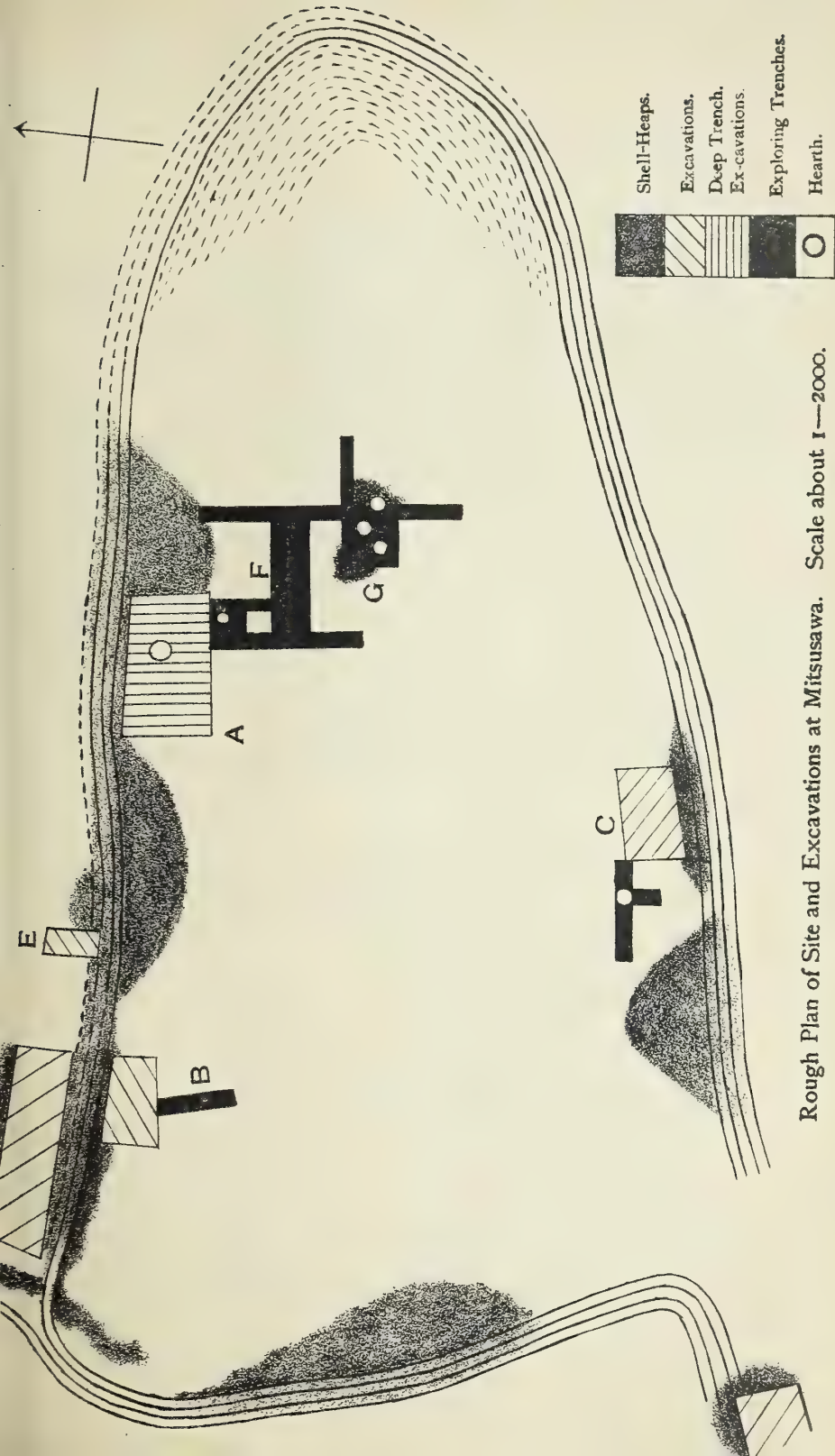
The Kishago, which is a kind of whelk, is found distributed throughout the shellheaps in lesser bulk than the bivalves, sparsely scattered in places and in others present in strata, varying from a few inches to several feet in thickness. Though not to be despised in the soup pot, the small size of these molluscs renders them less acceptable than the bivalves. Their occurrence in strata may be accounted for by occasional periods of scarcity in other shellfish, or articles of

diet. *Kaki*, (oyster) shells also occur in strata as well as intermixed with others.

From the fact that potsherds and implements of stone and bone are usually buried, not only in the shell-heaps but in the soil in the immediate vicinity, it is apparent that the kitchen midden was not resorted to from any special regard for order or cleanliness, but as a means of restricting the effluvia from decomposing matter. In some instances holes have been made for the disposal of refuse, including bones and shells, the latter with or without their contents.

Certain shells, but these are rare, have been perforated to serve for ornament or use; bivalves not uncommonly acted as receptacles for pigment or other material, as we shall see later on. Doubtless also the latter formed handy knives and saws for cutting not too resistant material.

It may assist the reader to form some estimate of the foundation culture of Japan if we glance for a moment at one of the sites formerly occupied by the primitive people. In the autumn of 1905, after some experience in shellmound exploration, I came upon a site in the locality known as Mitsusawa, near Kana-gawa, in Musashi Province. As I passed along the southern edge of a plateau, about 350 yards in length, I noticed some shells cropping out among the grass. A cursory examination proved the existence of a small shellheap, but realising the excellence of the position as a primitive site, the consideration indeed which first prompted my search, I examined the northern side in the expectation of finding larger deposits. Here, for a distance of about two hundred yards, the



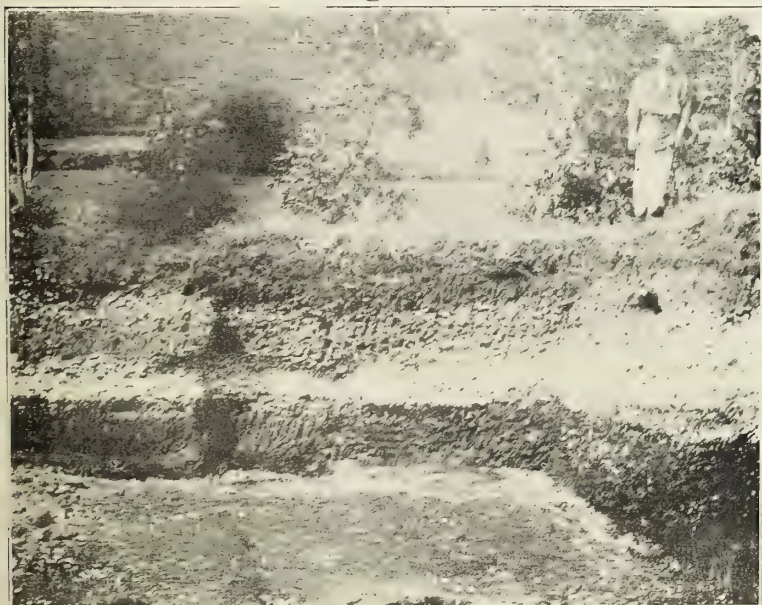
Rough Plan of Site and Excavations at Mitsusawa. Scale about 1—2000.

Fig. 5.



Shells in the soil with part section of a shell-heap at Mitsusawa.

Fig. 6.



Northern Section showing three strata of shells, the lower mixed with soil.

Fig. 7.



South-east corner of shell-heap showing cavities in the red clay.

Fig. 8.



North-east corner of same section with cavity in the red clay.

side of the plateau was almost continuously occupied by shellmounds and it became evident that a primitive hamlet had stood on this ideal location. The table-land, though small, is almost level and raised from 80 to 100 feet above the estuaries which, though now elevated by alluvial deposit, formerly ran inwards on two sides from the sea, which is now over a mile from this site. Between this site and the sea lies another less level plateau or hill covered now by wood, but also containing primitive remains. In the neighbourhood are quite a number of shellmounds that have not yet been explored. On this site there are nine distinct shellmounds, but others have coalesced on the northern side. Potsherds are scattered all over the plateau, but are more or less concentrated in places as if habitations had formerly existed there. By means of trenches across these areas the remains of primitive hearths were indicated by the presence of earth burnt to bright redness, with stones and charcoal. Beneath some of the northern shellmounds there were distinct vestiges of habitations.

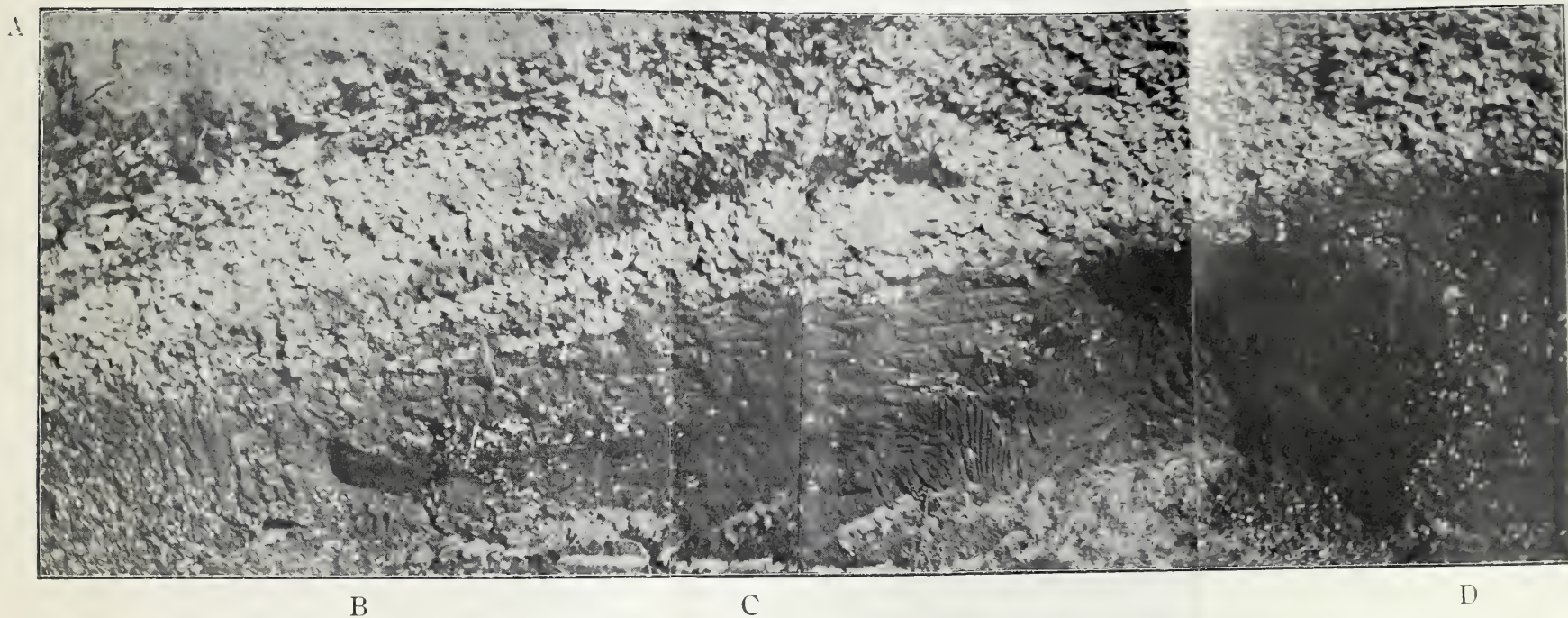
A short description of these excavations may therefore be of interest. Without going into technical details of the separate sections, I shall call attention mainly to excavation A (plan), because, though not the first to be carried out, I decided to attack this large shellheap by making deep trenches and thus cutting steadily across it. I entertained the hope that by doing so I might encounter more complete evidence as to the people who left these remains. This fortunately proved to be the case. In this work, which lasted for seven months, I was for a time assisted by Mr.

Yagi. Each trench, which was about 35 feet long, ran parallel with the declivity, the depth at the upper (south) end being about 4 feet and at the lower (north) from 6 to 8 feet. Where sudden depressions occurred this sometimes reached to 12 feet. Each spadeful of refuse was examined previous to removal and as the first line of excavation showed that the layers gave evidence of having been deposited at different times, an account was kept of pottery and implements from the different strata.

A layer of black earth covered the site, interspersed with shells, which were visible on the surface, Fig. 5. This layer varied in thickness from two to six inches and covered a layer of volcanic ashes almost certainly from the eruption of Hoci San, an excrescence from Mount Fuji, in the years 1707-8 A.D.* The ashes had a depth of from two to three inches and were not uniformly distributed over the shellmound. The layer had probably been partly removed by tillage. Darwin found that under the most favourable circumstances an elevation of mould by the agency of earthworms, to the extent of .2 inches per annum might be expected. A thick layer of mixed red and black earth, over two feet thick where the volcanic ashes were most in evidence, seemed to form a good bed for earthworms, but if we attribute the ash to the Hoci eruption, a superimposed layer of six inches of soil would give, for the past 200 years, only about .03 of an inch per annum. The layer of ashes, however, is interesting as a proof that the shellmound had not been disturbed for two hundred

* During this eruption, some parts of Tokyo were covered by ashes to a depth of six inches.

Fig. 9.



Partial section of a shell heap. In the left hand upper corner A, some volcanic ash is visible, probably from the eruption of Mount Fuji in the year 1707 A.D. This is covered by a layer of soil from two to six inches in thickness. Near B a skeleton and at D, two skulls were found together with a primitive mill, a polished and a chipped celt, and a broken sharpening stone. The section of an ash layer may be seen at the lower margin of the picture (C). This was continuous with a primitive hearth, and it may be surmised that the skulls were first buried in a dwelling, a familiar mode of sepulture with primitive man.

years. It will be seen on reference to Figs. 6, 7, 8 & 9, that the lowest stratum is composed of earth mixed with shells resting on a foundation of red clay.

In places one could only see a shell here and there in the mass of earth. The lowest layer had therefore been disturbed. The upper layers consisted of shells in regular formation, unaltered from the time of deposition. The facts that so great a number of bivalves were unopened and that the Kishago and other shells preserved their stratification constitute proof that the upper layers have not been disturbed and that the admixture of shells and earth in the lower stratum was effected previous to the formation of the shellheap. This occurrence called for some explanation which duly appeared during the course of the exploration. For this purpose the shell layers and mixed and earth layers only need be distinguished.

The first skeleton found was lying on the red clay, which had been dug out a few inches. Around it was a stratum of black soil and red loam and above a layer of mixed soil and shells, including a streak of Kishago, which appeared to have been interrupted by burial. This however is not certain.

Immediately above the skeleton, this layer was two feet in thickness, and was covered by shells overlain by earth about three feet in depth. Nearly on a level with the skeleton, about 12 feet distant, was a layer of wood ashes and at the southern end of the trench a hole, probably intended for food or water, nearly five feet in its greatest diameter and over two feet deep.

The second skeleton was lying above a layer of black earth containing a few shells and partly covered by

a layer of Kishago mixed with earth and some other shells. Above was a stratum of black and red earth thinned out at this point, with about four feet of superincumbent shells and soil in regular strata. At the level of the skeleton and some six feet apart was the edge of a layer of wood ashes, and within five feet was a primitive hearth. This was recognised by a circle of stones to confine the fire, the presence of ashes and charcoal and especially by the terra cotta colour of the underlying burnt soil. In the same trench at a distance of 16 feet from this skeleton, I came upon two skulls, in close contact, lying upon the layer of wood ashes and covered by the stratum of black and red soil, the interment having apparently again interrupted a layer of Kishago. Broken pieces of pottery were placed around the skulls, but owing to a misunderstanding of my instructions, these fragments were mixed with others, so that I could not ascertain whether this was a case of jar burial. Lying within two feet of these skulls were a mortar, a finely polished and a rough celt, and a sharpening stone. There was no trace of wood, but practically none has been found in any shellmound, so that this does not negative the view that a dwelling place existed where these bones were found. There is every reason to suppose that this spot was tenanted by the primitive people and it is practically certain that one or more habitations were covered by this shellheap. It is probable that the bodies were left, within some kind of dwelling and that more effective burial was carried out after partial disintegration of house and human remains. The absence of the trunks and extremities of the two latter skulls does not

necessarily indicate anthropophagy. The earth mixed with shells is accounted for by the presence of human culture before the upper layers were formed. The admixture was due to the use of earth as an effective covering for the remains of the dead, whether after a period of house burial or not I cannot positively say. The skeletons were in a crouching attitude, lying on the side, with the face upward in both cases. It is needless to detail the positions of the bones in this place; though the skull of one was lying three feet from the trunk it might have been displaced by the final inhumation. The separate burial of skulls exists in other primitive cultures, and is not necessarily associated with anthropophagy. The bones themselves will be discussed when the early races are under consideration. To the east of the third line of exploration holes were discovered in the red clay, which are to be seen in Figs. 7 & 8. These holes were filled with black earth and a few contained fish bones, but the majority were without these. They might have been used for the storage of food or even water and some might have been sunk for the insertion of house posts.

Of the implements found, the rough stone celts greatly outnumbered the polished ones and there were more of these in the lower stratum (of mingled earth and shells) than in the upper; yet the finest specimen of the latter obtained from this site was situated at the bottom of the lower stratum. The pottery of the two strata showed, on the whole, coarser paste and more archaic ornamentation in the lower than in the upper, while fine and thin ware was decidedly more

in evidence in the more recent layer. I shall refer to this again when the ceramic art comes under notice. Curiously enough red pigment on the pottery was distinctly more common in the lower than in the upper stratum, but shells containing orpiment (vermillion), were found only in the upper layer. This, however, might result from greater decomposition of shells in the mixed layer. One ought to bear in mind that such differences might be due to social position as much as to grade of culture. Yet, when we find the finer pottery of the upper layer distributed over a comparatively large area, we are justified in the assumption that this recent layer bore evidence of an evolution in the plastic art.

Large numbers of fishing weights, of stones and potsherds, were found in the lower, but few in the upper layer. This might indicate a difference of station or individual occupation, rather than of general culture; possibly some of the stones found their way to the lower periphery by gravitation. The occurrence of so many rough stone implements in the earthy layer corresponds also to what I have found in this and other situations viz., that they are more common in the surrounding areas than in the shellheaps themselves, a point which is perhaps worthy of note in connection with the question of agriculture. But on the other hand, objects of stone were more liable than the refuse of food to be cast promiscuously around the dwellings.

At the spots marked with circles on the plan, three primitive hearths were seen under a small shellheap, (G) one near another (C) and one under the large heap (A). Near these, and at F, holes, apparently for

house posts, were also discovered. These excavations are being continued as circumstances permit and I hope ultimately to obtain a plan of this neolithic village, with fuller knowledge of its vestiges.

It is worthy of remark that the pottery exhumed not only from the superficial layers of shells but also from the upper soil in the neighbourhood of the dwellings and middens was, on the whole, of thinner paste and finer quality than that of the deeper layer of the shellmounds. The patterns, too, were more of the incised linear kind which we shall find to be characteristic of the INTERMEDIATE POTTERY, though this mode of decoration is not entirely wanting in the lower layers.



CHAPTER III.

HABITATIONS.

It is probable that the neolithic inhabitants of Japan were in the habit of using some light shelter during the six months, or more, of warm weather but pit dwellings were also in vogue and have naturally left more lasting traces of their existence. I shall therefore deal mainly with this type of habitation. In Saghalin and the Kurile islands pit dwellings are still in actual use. H. J. Snow thus describes them in the Kuriles:—
“The dwellings of these people were constructed by hollowing out a shallow pit, usually in sandy soil, planting posts around it, and, if they could be got, making an inside lining of boards. Poles were laid across the top, forming a flat roof, and more poles laid at an angle from the edge of the roof so as to give the sides a sharp slope. The whole was covered with reeds or grass, on which was placed earth and turf. The entrance was closed by a roughly made wooden door, which opened into a small lobby and low narrow passage, with another door opening into the main compartment. Around the sides of this, bunk-like recesses were constructed under the lean-to side walls. These were thickly strewn with dried grass and used as sleeping places. Sometimes these dwellings consisted of two or three rooms, each one being

separated by a short low narrow passage, with a door at each end. These larger houses are found more particularly on Shumishir, where the natives are much better off than those of the central Kuriles.”*

Prof. Koganei also gives the construction: “The ground is dug one foot deep and posts are erected around the hole. The sides are covered with rushes and wooden boards and then with earth, one or two feet thick. The roof is covered with thatch and earth. The house is about nine yards long and eight broad. It has an entrance at the front about four and a half feet high and little over a foot and a half wide. The door is of wooden boards. Through this entrance we come into a corridor. . . . There is a door giving entrance to the main portion which is divided into two rooms. . . . Every house has a hut in front of it called *inunche*. This looks like an Ainu hut, is lined with rushes and is used in summer.”†

R. Torii, who made a visit of inspection to the Kuriles in 1899, also found the remains of pit dwellings, some of which had been in recent occupation. The pit dwelling was called *Toiche* and the summer residence *Inunche*, which is given as “fishing house”; though it probably means little more in the Kuriles, it carries with it the idea of being “absent from home in pursuit of a livelihood.” (Batchelor)‡

In Saghalin such houses are called *Toi-chisei* or *Toiche*, meaning “earthen house,” *Toi* being the Ainu word for “earth, land or clay” and *Chisei* “hut, abode.”§

* Geographical Journal 1885.

† T. J. Z. No. 44.

‡ “An Ainu-English-Japanese Dictionary” by the Rev. J. Batchelor.

§ Ibid.

An illustrated manuscript in my possession, written in the beginning of the last century, gives a picture of "an earthen dwelling" in Yezo, which is said to have been used by the "West Ainu."

In the "Tokai Yawa,"* (Evening Talks of East Yezo) by Dr. Y. Ōuchi, who resided in Yezo for three years as government physician, mention is made of pits at Kusuri. Dr. Ōuchi described them as surrounding the table-land on which stood the fortified place of Menka-kushi, and he stated that these pits were supposed to be the habitations of the *Kohito* (Small People), but he adds that these *Kohito* (or *Kobito*) must have been a very ancient people, as the great grandfather of Menkakushi knew nothing whatever about them. On digging in this place he found some unglazed pottery and an iron pot with handles inside.

In the "Kita Yezo Zusetsu" (Illustrated Talks of North Yezo) by R. Mamiya, it is said that the mode of house construction in Saghalin was similar to that of the "Ainu of Hokkaido" and some details are given. A site was chosen on the side of an elevation and excavated to a depth of three or four feet. Four posts were driven into the ground and the intervening space was filled in with branches of trees, bark and grass. A ladder was used to reach the interior. In Saghalin pit houses are said to be occupied only from September or October till February or March, as sickness was believed to follow prolonged residence. I can testify that pit dwellings get unpleasantly odorous towards the late spring.

* A.D. 1860.

No pit dwellings are known in Yezo at the present day, but pits are plentiful. Captain Blakiston was probably the first European to note their presence on this island, some thirty years ago. These pits were also studied by Prof. J. Milne, who remarked that the soil from the pit was banked up around it so as to form a low wall. This is the case with most, if not all, pit dwellings. These pits are sometimes found within a banked enclosure and moats have been observed. These remarks specially apply to those that are found on elevated sites. These were doubtless the fortified positions of chieftains. They are said to exist in the north of Japan, Yezo and the Kurile islands.

According to Prof. Y. Miyaki, pits are to be seen in all the provinces of Yezo except Ōshima. Some are round, others square or oblong. "The usual size," he says "is from 12 to 18 feet in diameter and from two to three feet deep."* Y. Takabatake found over 300 pits along the Ishikari river. Most of the pits were on plateaux, but some were found in the forest. The diameter varied from 10 to 35 feet. He observed four shapes, viz., round, oblong, square and oval. One round pit, near the Ainu huts, was 20 feet in diameter. No polished stone implements were found in this neighbourhood, but he came upon some rough tools of stone, with iron pans and primitive pottery. Some *sen* (copper coins) were also found at or near the pits, but the names are not given, so that one cannot guess at the date. This indicates, however, somewhat recent occupation. Some beads and *Magatama* were dis-

* T. J. Z. No. 52.

covered near the pits, but if these were from the Yamato culture they do not necessarily imply occupation by that people. The opinion of this writer is that these pits were dug by a people just passing from the stone to the iron age.* The same conscientious observer describes pits at Muroran, where he found stone axes, primitive pottery, a grindstone, stone arrow-heads, an iron pan and an iron axe. He noticed that the pits were usually round and that those of square or oblong form were large, from 18 to 24 feet in diameter and about three feet deep.†

S. Nakazawa also mentions his discovery of primitive pottery, oval stones, typical celts and other implements of the neolithic phase, with charcoal and ashes, in the pits at Maruyama, near Sapporo. These were about 18 feet in diameter and 3 feet in depth.‡

T. Tabikawa has given a description of pits in the extreme north of Yezo, at a place called Tsunajiri in Kitami province. Here are "Many thousands of pits." Shellheaps exist everywhere, a few feet underground. The shallow pits are of various shapes probably caused by falling in of the soil, but possibly some may be due to the removal of trees. Along with other investigators, he has noticed that the large pits are frequently accompanied by one or two small ones.§

The presence of pits in Honshu (Main Island) was brought to light, in modern times, by D. Sato. At Morita village, Nishi-tsugaru district, in the province

* T. J. Z. No. 103.

† Ibid. No. 117.

‡ Ibid. No. 104.

§ Ibid. No. 95.

of Mutsu, he counted 79 pits of which he gives the shapes, diameters and depths. The majority were round and resembled those of Yezo in most particulars. In these pits he found the pottery which I have called INTERMEDIATE, also a bottle of primitive pottery, two stone clubs and two pieces of hæmatite with holes bored through.*

S. Sato has given an account of the pits in the Kamikita district of the same province. Alongside of these pits he came upon primitive pottery. The largest pit was 24 feet in diameter and five feet deep. He notes the presence of a very primitive hut covered with branches and grass. This is known in the neighbourhood as *Keto*, "an Ainu term."† At Tokoshinai and Ohiru, in the same province, they reach an altitude of 1500 and 2000 feet respectively. Here they were associated with primitive pottery and implements (N. Ono). S. Fuse notes the existence of a pit in the province of Kai, containing an arrow-head of stone.‡

S. Shirai has called attention to two underground dwellings in the province of Ugo (Akita district), which were disinterred by a flood. One house is 54 by 30 feet, the other 36 by 18 feet. Each house is four feet underground and there are about two and a half feet from the surface of the ground to the eaves. They have doors opening on hinges which are placed on all sides and serve as windows. No metal is used in the construction, but the writer does not say whether the

* T. J. Z. No. 145.

† Ibid. No. 51.

‡ Ibid. No. 166.

hinges were made of withes. The roof is made of boards covered with cedar bark, over which there is a layer of clay about three inches thick. The writer says that the various implements found, including weaving apparatus, fishing gear, quiver &c., resemble those of the present Ainu.*

Other pits are said to have been found, extending from Kyushu to the Kwanto and sparsely, as far as Mutsu, containing INTERMEDIATE POTTERY but rarely stone implements. More complete investigation is awaited, but I shall afterwards give some reasons for the conviction that they were used by the lower orders of, or natives adopted by, the Yamato.

In the grounds of the Higher Girls' school at Nagano, in the province of Shinano, vertical pits were found containing Intermediate pottery, burnt *wheat*, charcoal, ashes and stone implements. S. Makita, who described this occurrence, thinks that the implements may have been used in making pottery.† N. Ono, who made a later investigation, came to the conclusion that the implements might have been accidentally introduced by falling from a declivity containing others of the same kind, but perhaps the first view is correct.

S. Makita has also described and illustrated pits and Intermediate pottery, found in the former, at Dōkwan hill, near Uyeno, Tokyo. This pottery received its name from its discovery in Yayoi street in this city, hence *Yayoishiki*, or "Yayoi sort" pottery. Generally the pits at Dōkwan hill are 15 feet in diameter and

* T. J. Z. No. 43.

† Ibid. No. 187.

from three to five feet deep. In one large pit, 26 feet long, was a shellheap.* It may be that this depression was intended for the midden. We shall see later that the Intermediate pottery forms a connecting link between the neolithic and Yamato cultures and is associated with the shell midden as well as with the Yamato tomb.

S. Yagi and others have remarked the existence of pit dwellings in Korea at the present day and several tribes in Formosa are known to use such constructions. Y. Inō states that when a death takes place, the body is buried under the floor of the dwelling and the survivors build a new hut at a distance of a few hundred yards or more from the hut tomb.†

Curiously enough, pit dwelling is still carried on in Japan, and a short account of my observations may be interesting. Some of the former pariah or *Eta* folk still continue to use such dwellings from October to March or April and occasionally even later. Sometimes they are used as workshops throughout the year. Many of these people work in leather and straw. The somewhat damp warmth of the pits is believed to facilitate the manipulation of these materials. These constructions are often occupied as residences during the winter months and present a survival of a more general custom. Like the *Toichisei* of the Ainu, these roofed pits are situated alongside of huts or houses of light construction, usually the same as those of the Japanese. They are generally separate from the permanent houses, being sometimes connected by a

* T. J. Z. No. 192.

† Ibid. No. 239.

Fig. 10.

*Eta-muro*, under construction, showing roof.

roofed passage. The size may be only eight feet square, sometimes nine by ten or twelve feet and occasionally larger. With rare exceptions they are dug freshly each autumn, are rectangular in form and the contained soil is, as usual, heaped up around, to form an embankment. The depth is from one and a half to two feet. The inner aspect of this embankment is about a foot, sometimes a little more, distant from the side of the pit so that a ledge is left all around, to do duty as a shelf or table. The rafters of the roof run through this embankment into the soil and are bound to the ridge

Fig. 11.



Ya-muro (to the right) showing protection of window and door by gables affixed to the roof proper.

pole with straw or grass rope, Fig. 10. The cross pieces and all the material used in construction are fastened in this primitive fashion; nails would be inappropriate and inexpedient in this type of dwelling, which has to be rebuilt each year. So far as I have seen, the roof is rectangular. The covering is a rough thatch of straw, laid on in two layers between which is an inch or two of earth; or one layer covered with earth. It is, like the absence of iron nails, a primitive survival and connects the pit houses of the *Eta*, with those of the Kurile Ainu. A kind of gable

is often affixed to the main roof as an after-thought, but is independent of the latter. Such gables run in one or two directions to protect the door or window against snow or rain, as seen in Fig. 11. Here the window, with paper panes, is to the right and the entrance is on the left, adjoining the permanent dwelling. Occasionally a single storm screen is employed,

Fig. 12.

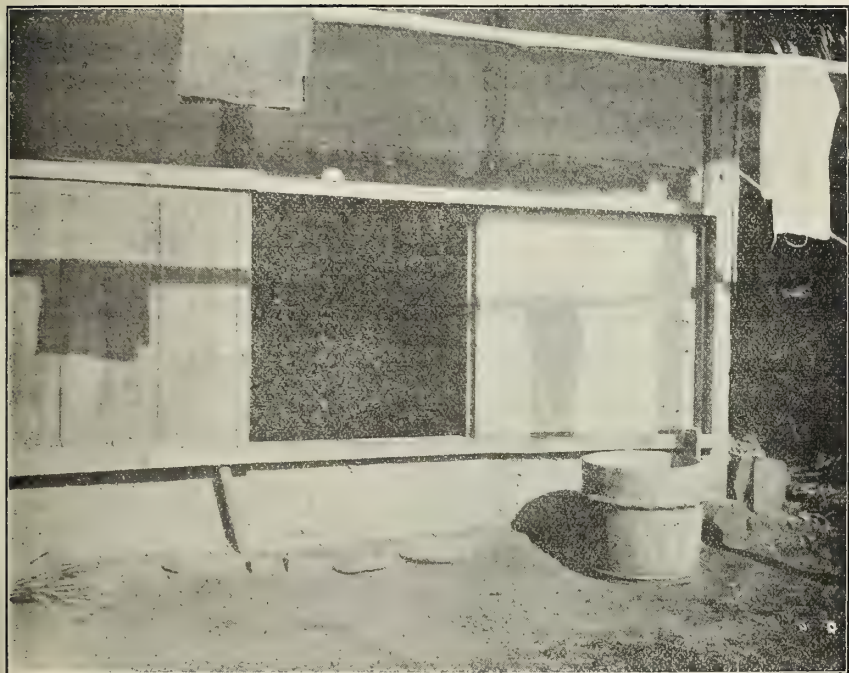
*Eta-muro* with storm screen.

Fig. 12. Two inclined poles with cross pieces bound with straw rope, form a short ladder which leads down from the entrance. The doorway is covered with a piece of coarse matting in cold and rough weather. The interior contains one room, the earthen floor of which is covered by mats of straw. The sides of the pit are also hidden by matting, so that the interior

does not look at all forbidding. The height of the ridge pole from the floor is six feet, or a trifle over, but the sloping sides render it impossible to move about in the erect posture.

An interesting survival of the pit dwelling is seen in houses where the independent pit has been discarded. This is a chamber with an earthen floor, sometimes a

Fig. 13.



Uchi-muro, or house with apartment on, and sometimes below, the ground.

little below the level of the house, Fig. 13, where the low window is seen. This is used as a workshop and as a residence in winter. The cellar of the European house may be a vestige of the pit dwelling. The Sanskrit word *Kal*, from which "cell" was derived, was originally a hut or abode.

The word *Muro* remains in the Japanese language to express an underground chamber of any kind ; also a private room or "den." Formerly it was associated with the idea of pit dwelling and is still used in this sense in history and as descriptive of the foregoing habitations, which are known as *Eta-muro*. At the

present time *Muro* are used for maintaining the heat of plants in order to force their growth, to hasten the fermentation of rice in the manufacture of the intoxicating beverage *sake*, also for preserving ice. The word is now exclusively Japanese, but I wonder whether it may not have had an Ainu origin.

Mu in the Ainu language means "to slant" and this feature of the *Muro* roof is the first thing to strike the beholder. W. G. Aston in a note to his translation of the *Nihongi*, mentions the "thatched roof sloping to the ground" of a pit house for pilgrims which he observed at the foot of Mount Okayama. On further consideration, however, I am disposed to trace *Mu* to the Ainu word *mu* meaning "to be shut in," perhaps the origin of *Mo* in the words *Moi-i*, "quiet" and *Mokon*, "to sleep." According to the "Rigen Shu Ran" (Collection of Ancient Sayings), *mu* meant "to enclose" in ancient Japanese, but I am inclined to think that this word came to the Japanese from a source common to that of the Ainu. It is probably connected in Japanese with *Umu* to "give birth" and *Umeru*, "to bury" ("to fill up," Brinkley's Dictionary). Here the Yamato custom of accouchement in a *muro* may be noted.

The component *Ro* is less difficult to trace. In Japanese it means a "hearth"; in Ainu it enters into several words such as *Roro*, which are connected with the fire-place. The word *Muro* might thus have been originally an enclosed hearth.

The idea of shutting in might have been associated with that of hiding, as in the expression *Tsuchi gomori* "earth hidens," indeed the "Wa Kun Shiori" (Diction-

nary of Ancient Japanese Pronunciation) derives *muro* from *Komori* "to hide." Yet farther fetched is that of the "Rigen Shu Ran," which gives the source of *Muro* from *Mamoru*, "to protect."

In the *Kojiki* and *Nihongi*, and in the provincial records, there are several references to pit houses and dwellers.* What may possibly be a faded memory of a pit dwelling, is given in the legend from the *Kojiki* concerning the retirement of Ama-terasu-oho-mikami, the "Heaven Shining Great August Deity," behind the door of the "Heavenly-Rock-Dwelling"; the word "rock," according to the great critic Moto-ori,† not necessarily having a literal significance. In the *Nihongi*, a "doorless *muro*" is mentioned, in connection with the accouchement of Ka-ashitsu-hime. Under the marvels of the reign of Jimmu Tennō, we read, "On making his progress thence, a person with

* The "*Kojiki*" or "Records of Ancient Matters," was given out in the year 712 A.D., though it had been in preparation near the end of the previous century. It embodies mythology with miraculous and other legends, later traditions, and history which has an air of probability, for about two centuries before the publication of the work. The later accounts are not without flaw, but, on the other hand, there is probably some true history in the older stories, if only we could separate the wheat from the chaff. The translation of this classic, carried out by Professor Chamberlain and placed before The Asiatic Society of Japan in 1882, gives to the world a collection of material for the historian and the student of folklore, of great interest and importance.

The *Nihongi*, published in 720 A.D., was based on the *Kojiki*, or on sources common to these two works. but was apparently arranged to suit the Chinese taste of the court, if not the taste of the Chinese court, in the beginning of the 8th century. It contains however, many variants of myths and legends given in the *Kojiki*, which seem to have been compiled with the desire to give "all the authorities." Its chronology, was guess-work, framed on a Chinese calendar, within the limits of probability as it was understood at the time (prodigious longevity, &c.). Although there is much that is doubtful, there appears no deliberate attempt to falsify history, while the mythology and legends convince us of their survival from a remote antiquity. This lack of reliability is less to be regretted, because it could not have been altered at the time of the *Kojiki* or *Nihongi*, except by a process of elimination. We have, therefore, to thank the absence of the critical faculty for the preservation of this important mass of folklore. From the attempts of the *Nihongi* to rationalise some of these stories, it is evident that their fabulous nature was recognised at the time of the 8th century, but the capacity of the past to produce marvels was not generally discredited. Aston's translation was published by the Japan Society in 1896.

† "*Kojiki-Den*," (Exposition of the *Kojiki*) 1790-1822.

a tail came out of a well. The well shone." Is it a mythopœic inference that a well which shone, might have been a subterranean dwelling? Again, we are told that Keikō Tennō erected a temporary palace *muro* and dwelt therein. In the reign of Nintoku Tennō, an "ice *muro*" is described (374 A.D., in the chronology of the Nihongi). "The imperial prince said:—'How is the ice stored? moreover, for what is it used?': He said:—'The ground is excavated to a depth of over ten feet. The top is then covered with a roof of thatch. A thick layer of reed grass is then spread, upon which the ice is laid. The months of summer have passed, and yet it has not melted. As to its use, when the hot months come, it is placed in water, or *sake* and thus used.'"*

One of the names by which the Yamato distinguished the native inhabitants was *Tsuchi-gumo*. This expression was supposed to mean "earth spider" till recent etymology traced it to *Tsuchi-gomori*, or "earth hider." Aston points out that these words *gumo* and *gomori* carry the same meaning, the spider being the hider, instead of the spinner, in Japan. A glance at Fig. 14 tells us how this word might have come to be applied to the pit dwellers, and how it may have extended to the idea of the hunch-backed spider, though the latter, as a nickname for the pit-dweller of ancient Japan, is probably merely a mythical sprout from the word "hider."

The roof of the Ainu hut, like that of many Japanese houses, is first joined together, then elevated to the

* Nihongi, Aston's translation vol. I. p. 297-8.

Fig. 14.

Entrance to *Eta-muro*.

desired height, a survival, possibly, of the time when the roof was, constructively, the house.* The Japanese house of rural districts, with its walls of wattle and clay, Fig. 11, exhibits a somewhat primitive construction seen also in Europe. The tendency throughout rural Japan to build houses in hollows shows an appreciation of the kindly shelter afforded by such depressions. The *Muro* of the former *Eta* is unquestionably a survival from ancient times, when the primitive population and probably the lower orders of the Yamato, like their present kinsmen in Korea, were wont to take refuge in pit dwellings during the inclement season. When the *Kojiki* was written, the

* Compare Fig. 10 with the illustration of Ainu hut erection at p. 120 of the "Ainu and their Folk Lore," Batchelor,

habit had apparently lapsed among the upper classes and was already attributed to an alien people. There was some excuse for this as the primitive inhabitants were using such dwellings at the time of the Kojiki and for long afterwards.

The Ainu of Yezo number about 17,000 and still preserve some exclusive features which stamp them as survivals of the primitive people of Japan. Whether tribes of another race formerly co-existed with them is a moot point which we shall defer to a later chapter. Here, it is enough to say that the present Ainu are the last descendants of a race which has left its place-names and vestiges of primitive culture throughout Japan, from south to north. From the commencement of historic times, at least, this people were called *Yemishi* or *Yezo*, meaning "barbarian," or rather, perhaps, to use a slang expression, "outsider." When the Kojiki was written the Yezo still occupied about a third of the main island (Honshu), but were gradually driven to the north and finally into the island which was called after the name which the Yamato settlers bestowed upon them. It may be questioned, however, whether their culture was so greatly inferior to that of the Yamato at the time of their entry into Japan. The fact of agriculture bespeaks a definite advance on one which had perhaps only attained to some degree of hoe cultivation and the disparity in the cultures of the Yamato and the Yezo, or rather let us say Ainu, increased as the one waxed while the other waned.

That the neolithic phase of culture in Japan had attained to a high degree of provision, not only for the immediate necessities, but also for the amenities of ex-

istence, is vouched for by the numerous remains which have been left behind. To those who were prepared to accept the present degenerate Ainu as the lineal descendants of the shellmound builders, it was rather a shock to be told that they declined to accept the credit for these monuments, that they attributed them to an alien people and emphatically stated that the pit dwellers of Yezo were a people of small stature to which they gave the name *Koropok-un-guru* "persons dwelling below," contracted to *Koropok-guru*. They also applied the Japanese word *Kohito* or *kobito*, meaning small persons, (the little folk, dwarfs) to the hypothetical strangers who had left the pits in the island. This story gained credence partly as a positive statement, and partly because the Ainu had ceased to carry on a neolithic culture; it was earnestly maintained by Batchelor and Prof. Tsuboi. A careful study of this matter has convinced me that the *Koropok-guru* is an inference myth, like the elves and pigmies of Europe,* that the Ainu have merely forgotten a discarded culture and that the occurrence of crude pottery with wares of wood and iron in the pits of Yezo suggests that they were formerly inhabited by the Ainu themselves. Further evidence will be presented during the course of this work to show that the Ainu of Yezo did make pottery and did use implements of stone. There can be little question that they used pit houses like their brethren of the Kuriles. It is satisfactory to learn that Batchelor has renounced his views regarding the original inhabitants of the pits of Yezo.

* The myth of a race of pygmies is also current in Formosa.

Instances might be adduced showing the transition between pit dwellings and those which are erected above ground. The huts at Shōnai in the province of Ugo, with their conical roofs and slight circular excavation of the soil, appear to be in the direct line of descent from the pit dwelling proper. M. Abe, N. Ono and R. Torii have described the primitive houses of Urayama village in the province of Musashi.* The ground is slightly excavated, the uprights are round pillars, the crossbeams are branches of trees and everything is tied together with rope, no nails being used. The roof is of bark. It is evident, from the construction of the Ise Shrines, and other archaic buildings, that the early Japanese house was also tied together in a primitive fashion; we may infer that the shanty used by the neolithic inhabitants during the warm months followed the lines of construction seen in such primitive roofs as those of the *Eta-muro* and of the huts of Shōnai and Urayama.

It is probable that the Mitsusawa site was, during many generations, occupied by primitive habitations. In all the trenches marked on the plan I have encountered holes sunk in the red clay. In the broad trench F (see plan), there were no fewer than 27 such holes, none of which were much more than a foot in diameter. The depth varied from 8 inches to 2 feet in the hard red clay, but above this was a layer of mixed red and black earth, one or the other colour predominating in patches. In places the black earth lay directly on the surface of the hard red clay. Here and everywhere, the holes at the bottom of the trenches were filled with a mixture of

* T. J. Z. No. 110.

red and black earth, containing occasional fragments of primitive pottery, like the overlying soil. It is reasonable to suppose that these holes were filled up from time to time during the primitive occupancy and I draw the inference that most of them were intended for the reception of wooden uprights in the construction of dwellings. These holes are not arranged in straight lines, but if we consider that a limited area has been occupied for many hundreds, perhaps thousands of years, and that numerous habitations existed, none of which could have lasted more than a few years (perhaps 10 years at the outside), we can understand why the holes are so plentiful and the distribution so irregular.

The question of house burial is also important in this connection, because it would lead to frequent house erection. It is a usual, though not a universal custom in primitive cultures, to abandon the tenement which the corpse occupies. This, as we have seen, is the case in Formosa. I cannot yet say that this was invariably the case in Japan, but so far as my investigation goes, it was so at the Mitsusawa site. On the floor of three habitations I have come upon skulls and other human bones. On other places they are absent, but this does not signify that they were not formerly buried in these houses. In a circumscribed and eminently desirable site such as that at Mitsusawa, habitations must frequently have occupied the same spot and, as they appear to have been excavated down to near the red clay, if not actually on it, human remains must have been encountered and removed to make room for the living. This possibly furnishes one

explanation of the scattered remains in the shellmounds and throughout the sites.

It is evident that the use of upright posts for house construction indicates a more advanced architecture than that of the *Eta* pit dwellings. In the former the roof must have been raised from the ground, though the floor was probably below it. In the latter the roof rests on the surface of the ground, with the sloping rafters stuck into the surrounding bank for protection against wind and flooding by rain. It must be remembered, however, that while the consistence of the hard red clay has preserved the excavated holes, the dimensions of the pit dwelling proper could only be ascertained at this long interval of time, by the character of the excavated soil. As this probably did not reach further than the surface of the red clay, and as many such habitations, if they existed at all, must have been made and re-made during the primitive occupancy, the character of the soil (whether mixed or no) furnishes no exact criterion as to the limits of such habitations. Though I hope to acquire more definite information on this point when the excavations are completed, I can only say at present that appearances suggest that one spot, where human bones, pottery and implements but no post holes were found, was a classical pit dwelling.

We ought to bear in mind also that the Ainu of Saghalin and the Kuriles and the former *Eta* of Japan use pit dwellings proper during the inclement season only, so that it is quite likely that this type of habitation co-existed with others raised partly, or entirely, above the ground.



Japanese Neolithic Axe Types. Nos. 1 and 5, Sandstone. 2, 6, and 7, Serpentine. 4, Hornblende Sandstone. 3, 8 and 9, Chlorite Schist.
(Half Size.)



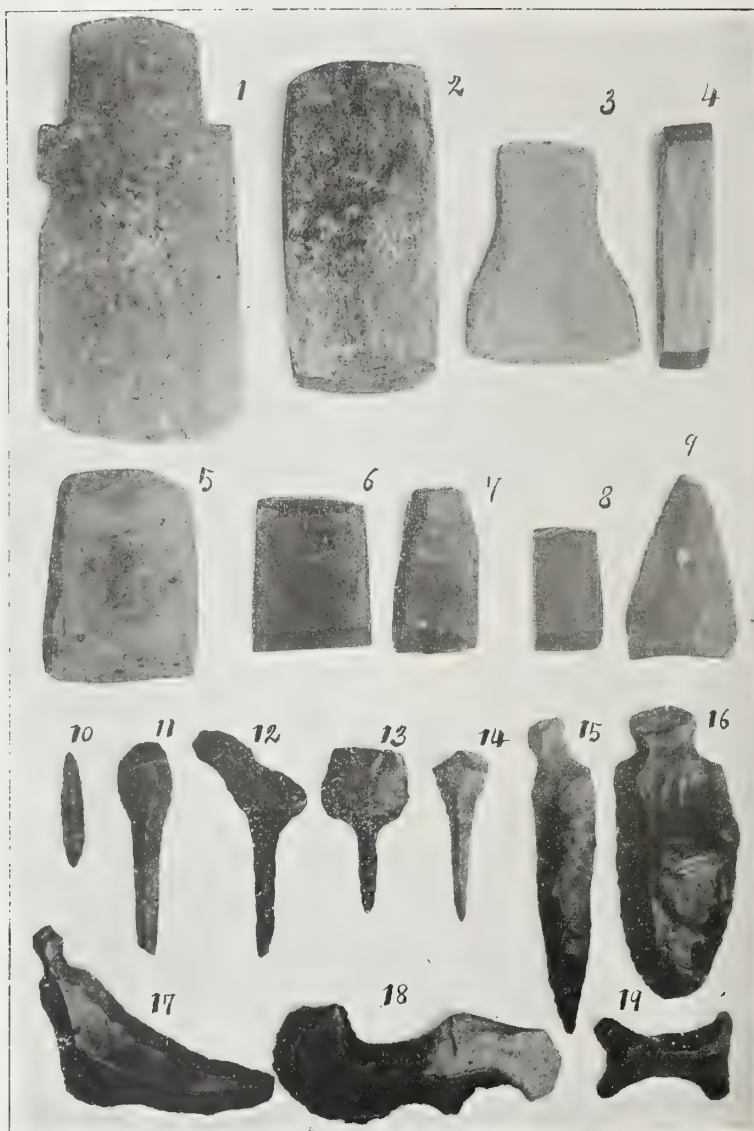
Axes, Mallet and Chisels.

1. Chlorite Schist. 2. Andesite. 3. Serpentine. 4. Chlorite Schist.
5. Chlorite Epidote. 6. Chlorite Schist. 7. Hornblende Sandstone.

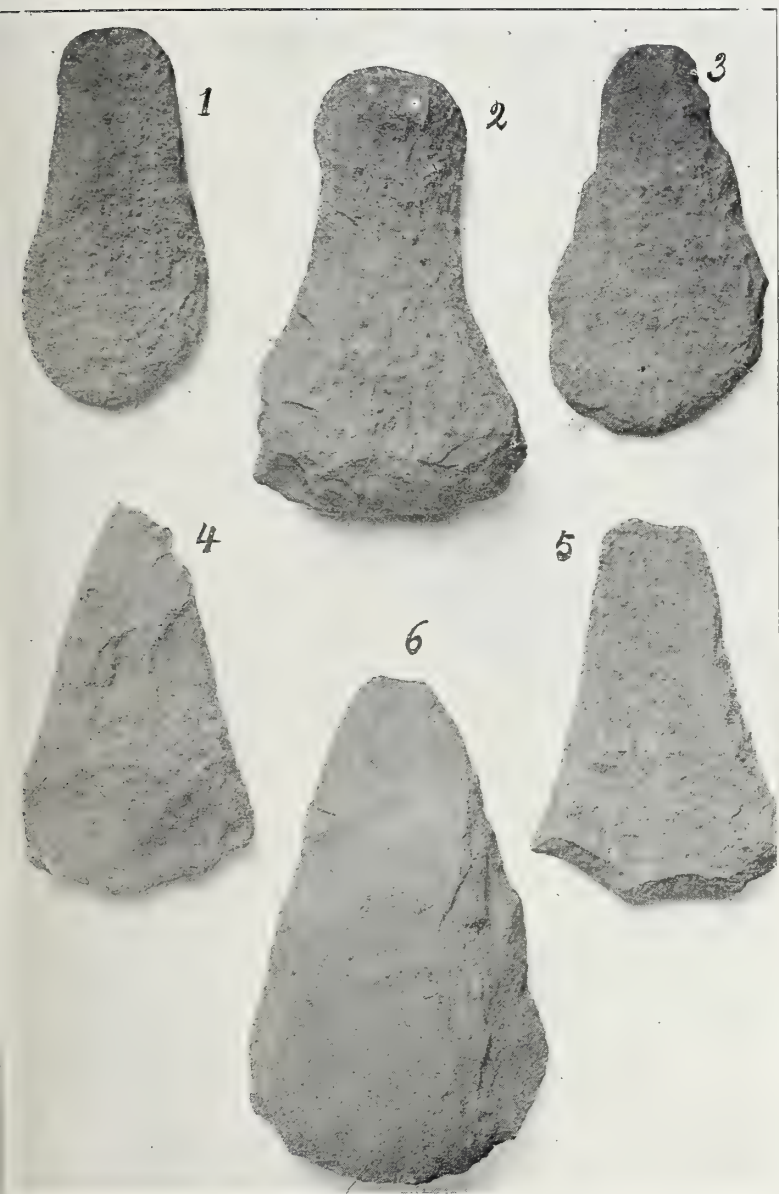
(Half Size.)



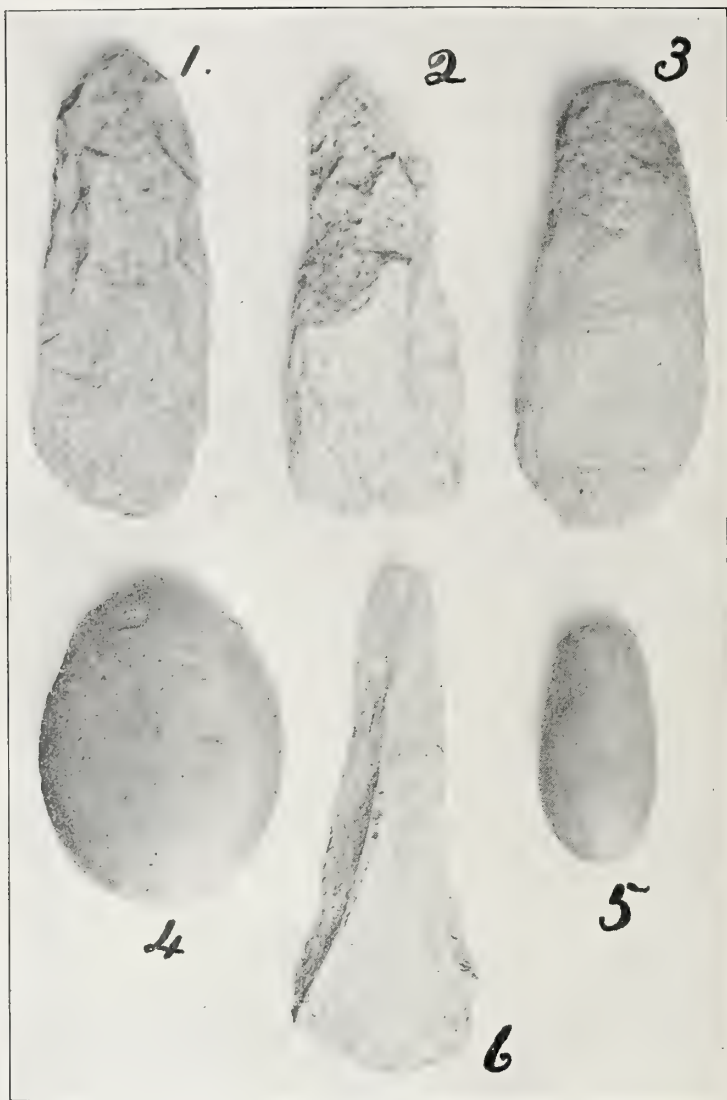
Mallets and Knife (Kanda Collection).
(*Tokyo Imperial Museum.*)



Axe, Chisels, Drills, Knives, &c. (Takashima Collection).
 (Nos. 1 to 9 are from Formosa.)
 (Half Size.)



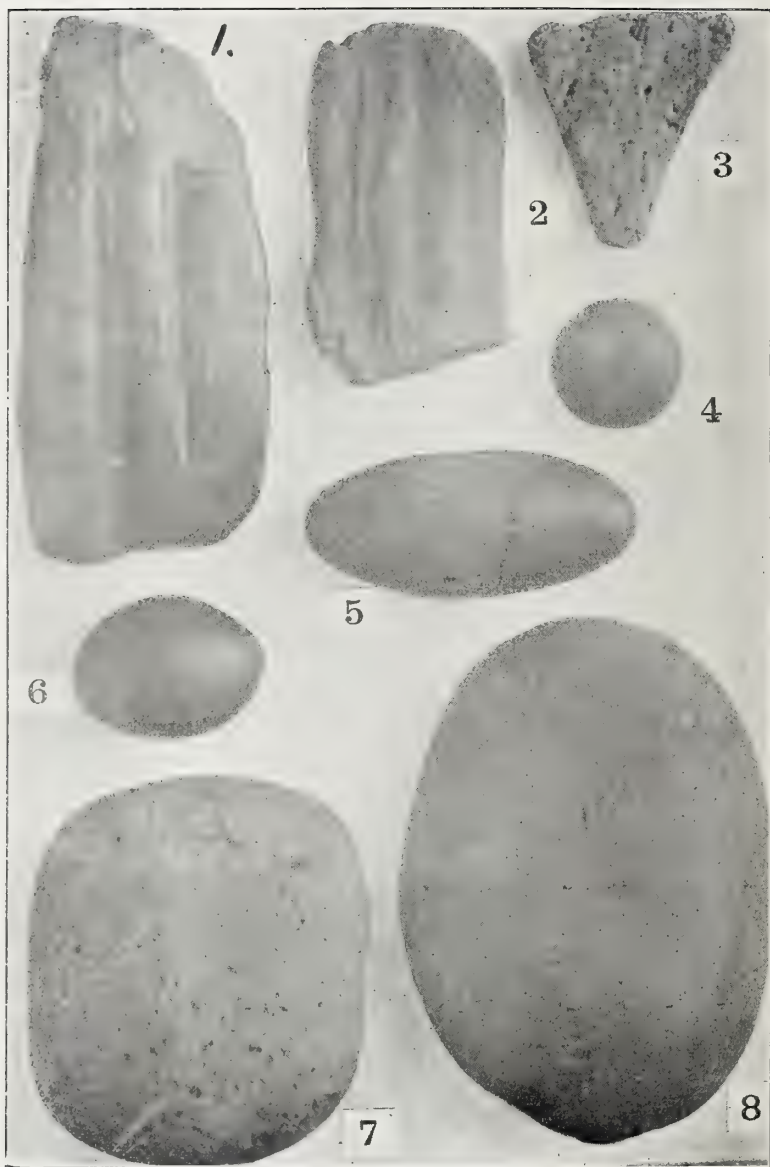
Rough Stone Implements.
(Half Size.)



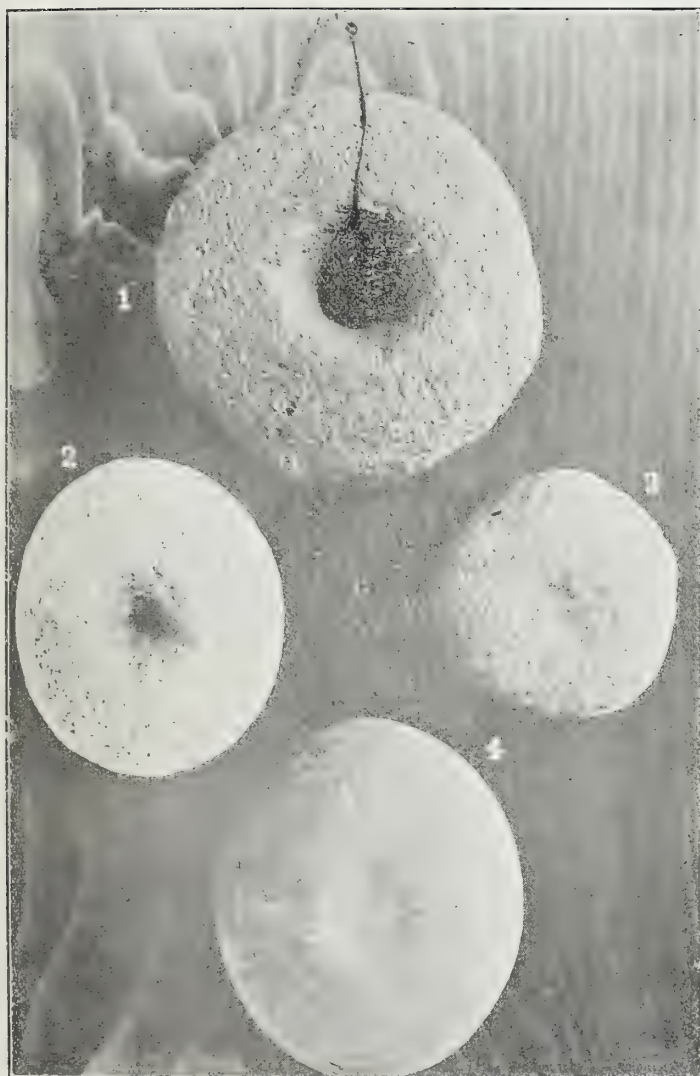
Roughly finished Implements and Natural (hammer) Stones.
(Half Size.)



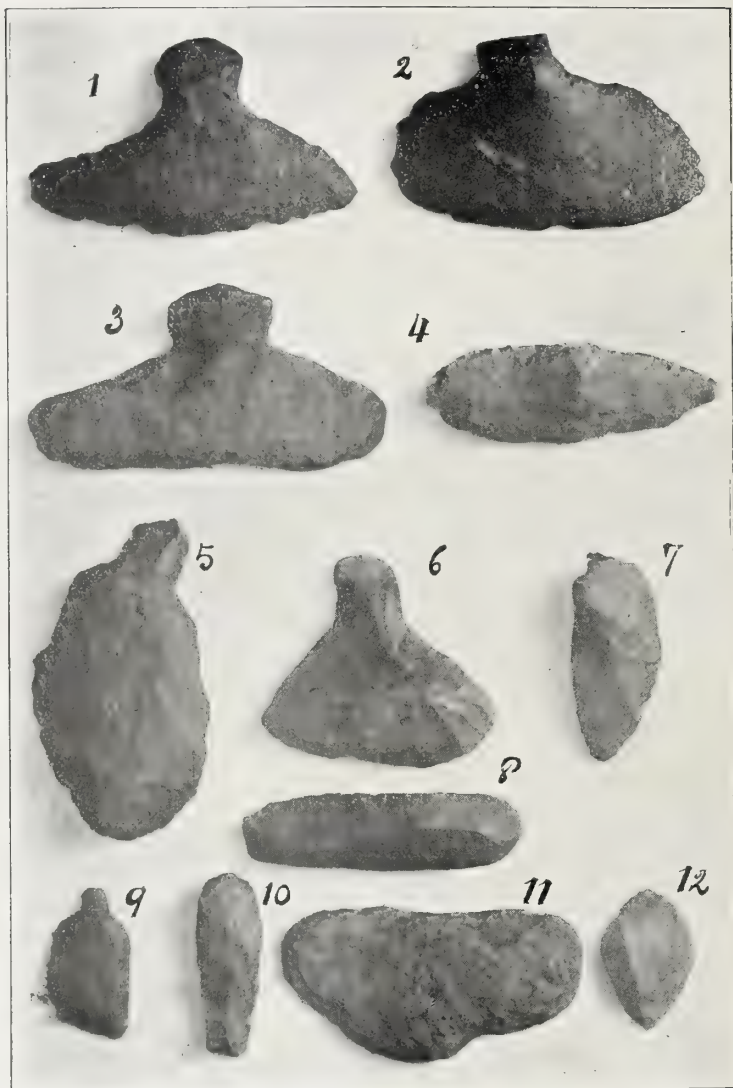
Fiddle shaped Implements of roughly hewn Stone.
Clay Slate ("This approaches sandstone in character."—M. Fujimori).
(Half Size.)



Files, Hammers and Rubbing-stones.
(Half Size.)

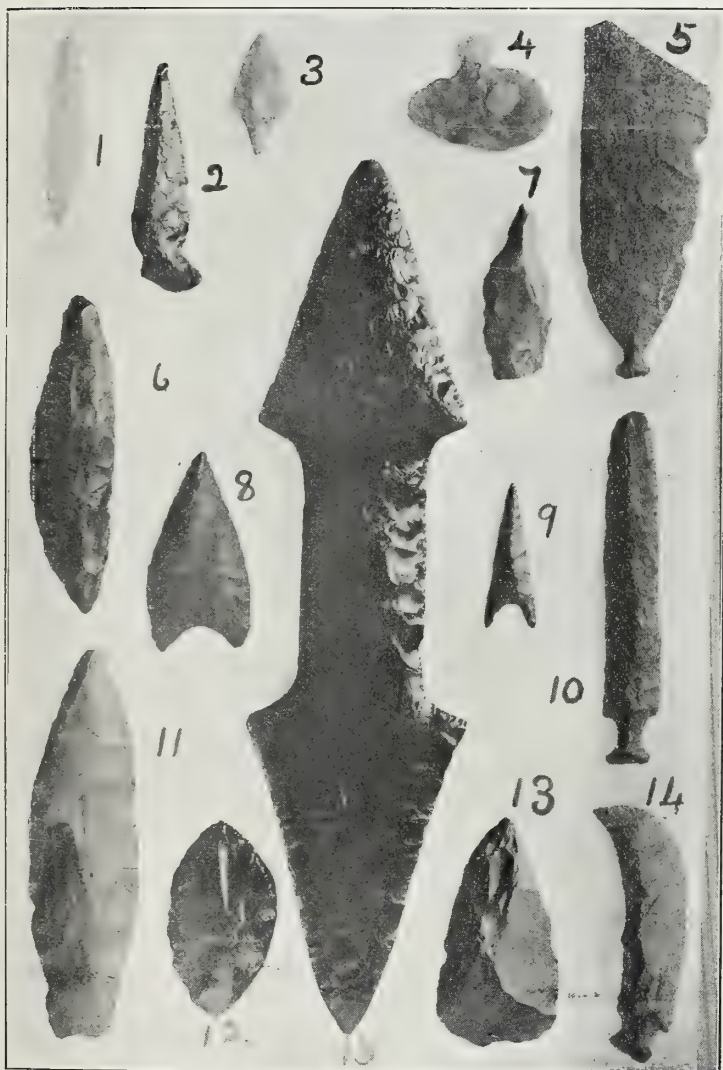


Drill or Spindle Weights and Hammers or Crushing-stones.
(Half Size.)

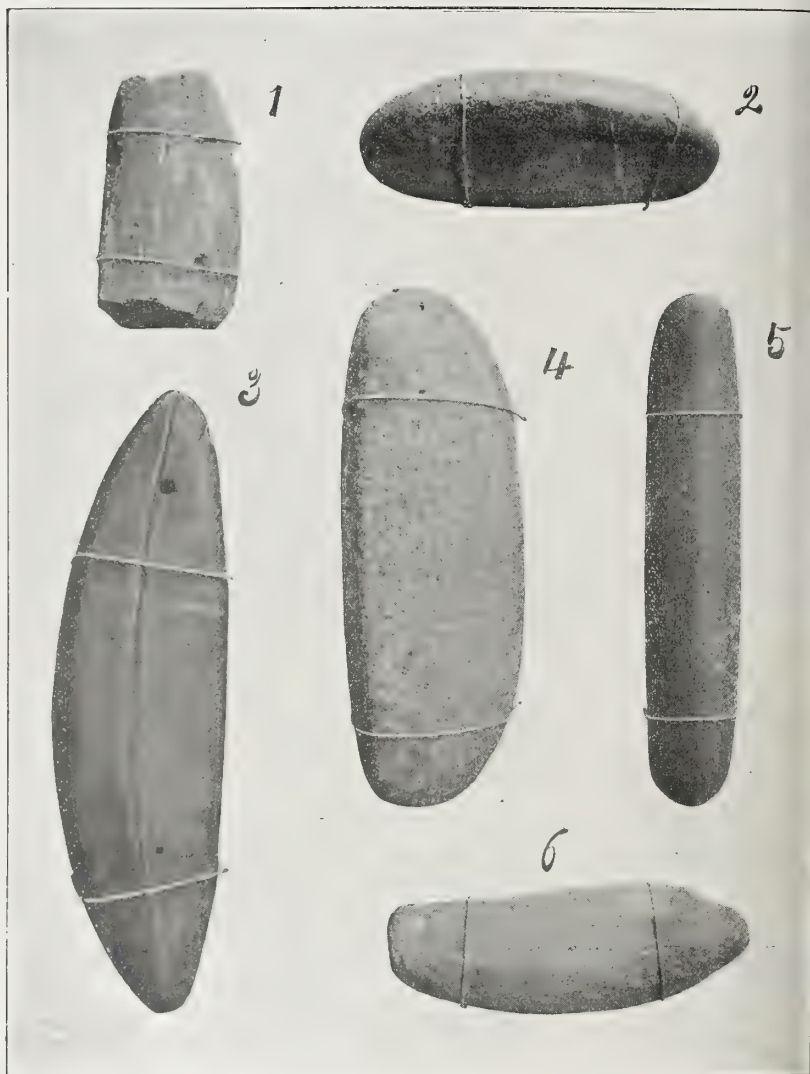


Knives. Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, and 12, Chert, 3 and 11, Argillaceous Sandstone.

(Half Size.)



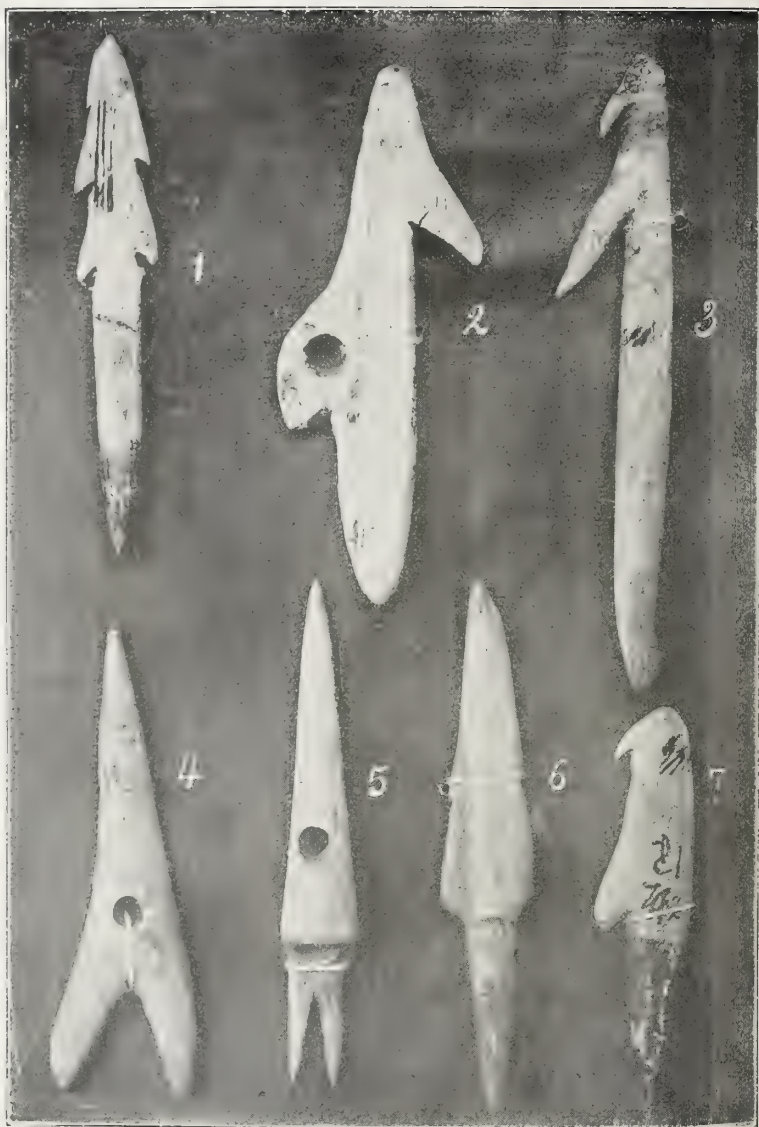
Stone Implements and Weapons. No. 15 (lent by Mr. Alan Owston) is Obsidian. So is No. 12. No. 3 is probably White Hornblende. The rest, with the exception of 4 (Agate), are made of Chert.
(Half Size.)



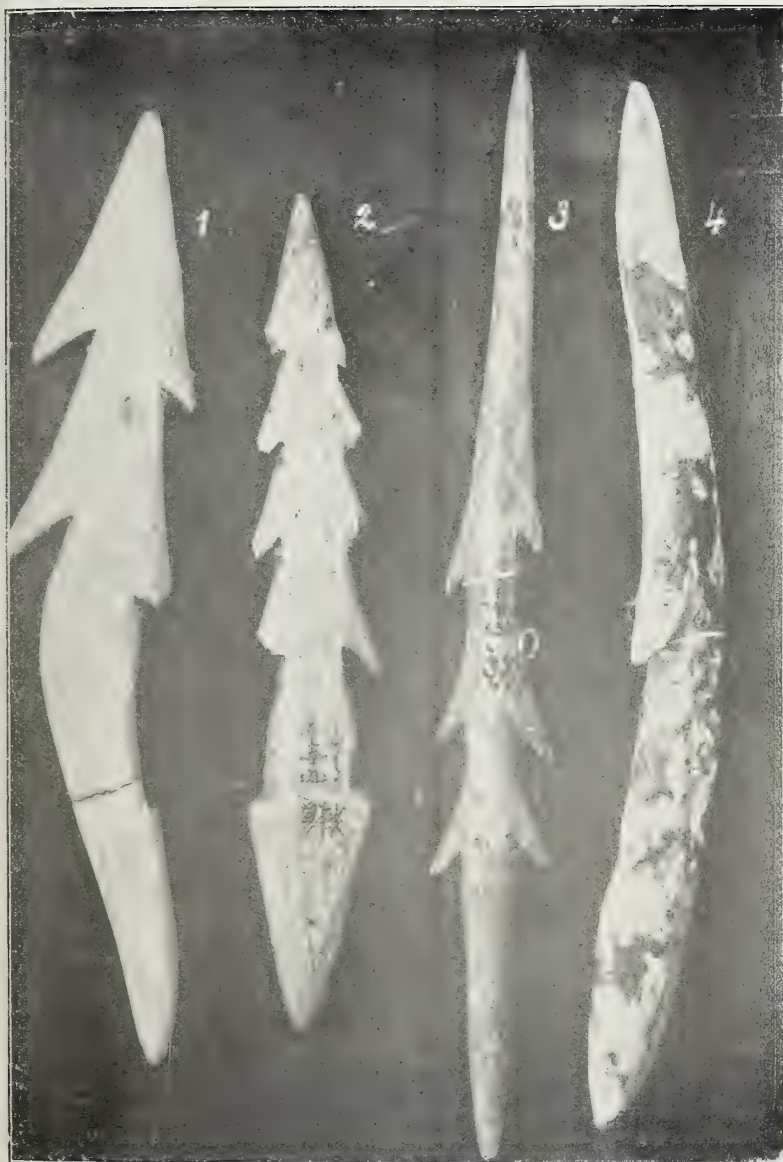
Stone implements (Kanda Collection).
(Tokyo Imperial Museum.)



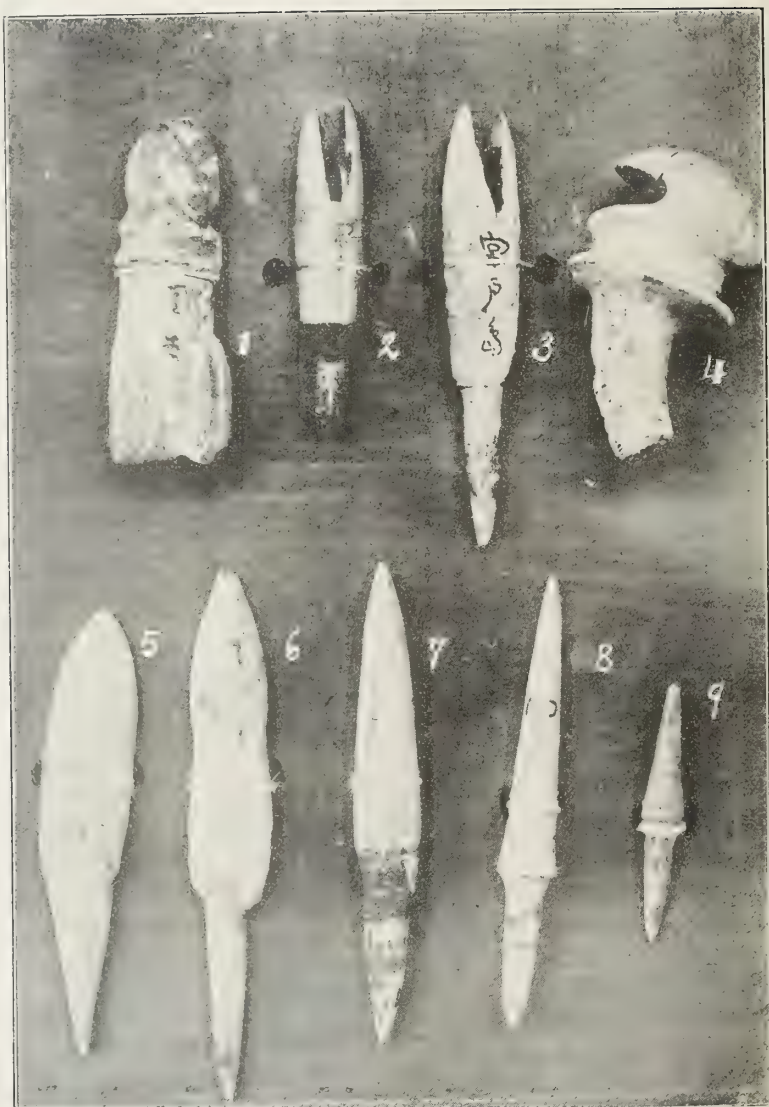
Staghorn Fishing-hooks, Harpoon-head, Gaff hook and Nozzles.
(All except No. 6 are from the Takashima Collection.)
(Actual size.)



Harpoon-heads and Fishing Spears of Staghorn.
(Takashima Collection.)
(Actual size.)



Harpoon-heads of Staghorn.
(Nos. 2 and 3 from Takashima Collection.)
(Actual size.)



Bow-tips, Arrow-nocks and Arrow-heads of Antler and Bone.
(All except No. 4 are from the Takashima Collection.)
(Actual size.)

CHAPTER IV.

IMPLEMENTS AND UTENSILS.

In seeking to discover the life story of the primitive Japanese through observation of the relics which have been buried under the accumulation of many centuries, we must bear in mind that the vestiges which have been recovered represent merely the skeleton of the primitive outfit. The resistance of organic matter to decay is greatly diminished by the presence of moisture in the soil. On the Mitsusawa site I found that the roots of trees, which had been cut down but 40 years ago, had almost disappeared, leaving only patches of disintegrated fibre which crumbled under the pressure of the hand. Some of the animal bones and antlers were also much decomposed, though with care they could be removed without serious damage. When dried, osseous remains may be handled with wonderful freedom considering their excessively friable condition when freshly taken from the ground. The human bones, and especially the crania, were in such a disintegrated state that one hardly hoped for complete adjustment, yet within a few months I was able to reconstruct them with a fair measure of success.

Implements of horn and bone have not altogether disappeared from the sites, but those of wood and bamboo, the textile fabrics, skins and flimsy gewgaws,

and, with extremely rare exceptions, the varieties of vegetal food which had a place in the primitive dietary, have left no trace. Yet, what we miss was of equal if not greater importance to the primitive life than that which has been preserved. A moment's reflection tells us that without the vanished material any attempt to portray the life of the neolithic inhabitants can produce merely an imperfect sketch.

At first sight, so meagre and deficient seems the material recoverable from these ancient sites, one almost despairs of formulating anything like a correct idea of the primitive culture. But ethnology teaches us that humanity has moved along much the same lines of culture, from its lowliest phases to the highest civilization. Tribes still exist in various parts of our globe which exemplify the culture phase of the Japanese shellmounds, or one yet more primitive. Survivals persist in our daily life which can be traced to the neolithic stage, or earlier. We know that man has fished, hunted and grubbed and has sometimes graduated as shepherd or cowherd before becoming a farmer. During these operations he has used much the same kind of implements all the world over. Of course there have been special contrivances in each region or period, but the general resemblance is quite striking. Without being able to predict the occurrence of specialties such as the boomerang or spear thrower, one may safely say that perishable material was manufactured by neolithic man in Japan, into the semblance of implements and weapons found in a similar grade of culture elsewhere. If we may judge by the close resemblance

of the stone implements and weapons of Japan to corresponding devices in the past and present neolithic phase throughout the world, those fashioned of wood were approximately similar. Certainly this was the case with implements, weapons and ornaments of bone, the resemblance of which to those of other lands and times, is even greater than could be gathered from the consideration that the needs of primitive man, the limited material at his disposal and, consequently, the technique of his arts conspired to produce similarity of design.

The use of stone, it may be remarked, lies more in the direction of preparing material for human needs than of ministering directly to them. The axe, for instance, the chisel, hoe, scraper, arrow-head, spindle-weight and milling stone are usually secondary to the end sought, such as dressing wood for house, furniture or implement, digging roots or preparing the soil, the capture and preparation of flesh and skin, the making of garments and grinding roots or cereals. Generally speaking its function was intermediary, but as a means to an end it was indispensable. As an end in itself it played the part of a god, or an ornament for the person.

Any durable and workable kind of stone was used, the first consideration being the more important, as the technique of the neolithic phase dealt with rather refractory material. The choice was mainly determined by the locality, but special kinds of stone were conveyed from a considerable distance. The bed of a river or the cobbles on the seashore supplied hard stone for implement-making. As W. H. Holmes has pointed

out, the softer rocks in their passage down a river become triturated to sand or fine gravel, leaving the harder cobbles for human use.* A process of "natural selection" thus placed in the hands of primitive man the material most suited to his needs. Among the minerals used by the neolithic Japanese are various kinds of sandstone, limestone, granite, argillite, chlorite schist, flint, chert, serpentine, steatite, obsidian, andesite, pumice, mica, agate, quartz, chalk, cinnabar and hæmatite.

The stone celt, under which Sir John Evans in his learned and fascinating work,† includes hatchets, adzes and chisels, is our main guide as to whether the culture associated with it was in a more or less primitive state. If it is smooth with the broad end sharpened we say that it is neolithic, if roughly chipped to a point with the other end blunt for handling, the type is said to be palæolithic. If it is chipped to a single or double edge, it may be either one or the other. The absence of smoothness, as previously observed, does not constitute a palæolithic tool. In Japan, where roughly flaked celts far outnumber those that are polished, they are almost invariably found with the latter and with pottery. They are very common in the Kwanto, less so in the southwest and in the north, where they are displaced by polished implements. K. Wakabayashi found many polished axes in Sanuki province.‡

Polished implements, if found in Tertiary strata,

* 15th Annual Report of the Bureau of Ethnology, p. 22.

† "Ancient Stone Implements of Great Britain" 2nd ed. p. 55.

‡ T. J. Z. No. 76.

would occasion much speculation, but roughly finished ones in recent deposits might easily be accounted for by accidental interference with their completion or intention on the part of the maker to impart no more finish than was necessary for a particular purpose. Just as the broom is still a bundle of twigs when used in the garden, though it has been modified for cleaning carpeted floors, so these rough celts continued to be used for rough purposes. They no more indicate a palæolithic culture than does the milling stone extant, in a primitive form, in Europe at the present day. This reiteration is perhaps not out of place in view of the impression, conveyed by several European works, that the palæolithic tool is found in Japan. My opinion is that the neolithic celt, whether rough or smooth, cannot claim the palæolith as a direct ancestor, but that the arrow-head and spear-head have been evolved from both the pointed and almond-shaped palæoliths. It seems probable, indeed, that the latter were weapons as much as implements. It is possible that the celts mentioned by Sir John Evans as ground only at the edge are steps in the evolution of the polished implement, but the evidence is insufficient. It appears to me highly probable that the polished celt originated in a region where the stone lent itself to smoothing rather than to flaking. Flint, which is so characteristic a material of both palæolithic and neolithic phases in Europe, was too hard to allure the prentice hand of primitive man to originate the plan of sharpening by rubbing on another stone. This art has probably been "propagated," from somewhere in Asia. Linked to this question as to the superposition

of the neolithic culture, is that of the appearance of the round-heads (brachycephals) in Europe. While the palæolithic remains are associated with a long-headed race (Dolichocephals) the neolithic vestiges are scarcely less identified with a round-headed race, which mixed with the former and apparently lent or enforced its culture, even where racial fusion did not take place. Whence came this round-headed race with its polished celts? It must have had a birthplace and a period of incubation. Moreover the conditions of climate in Europe at the close of the glacial period must have been eminently suited to it, for it flourished 20,000 years ago, and perhaps more; excepting in Britain, the west Baltic area and Spain, it has nearly displaced the dolichocephalic race. Without definitely accepting the hypothesis that the neolithic, brachycephalic people came from CENTRAL ASIA, this supposition is in harmony with the spread of neolithic implement types over Europe, Asia and America, and with the present distribution of the round heads.

The general form of the polished stone axe is conical, one end broad for cutting and the other narrow for grasping or hafting: it is obvious that this form tended to resist displacement from the holder (hand or haft) through pressure or percussion. The similarity of form between these objects is very remarkable and indicates a prolonged evolution and perhaps transmigration. It is not impossible that the somewhat conical polished axe is a lineal descendent of the elongated oval stones which are so common on the beach, river-side, or in gravel cliffs. These must have been handy missiles, simple rubbing of the broad end would con-

vert one into an effective tool. On this supposition the neolithic celt might have originated about the middle of the Quaternary Era, probably in a region where flint was scarce and gravel plentiful.*

The Japanese celt is still called *Raifu* (thunder axe) though it carries this meaning only among the uneducated. It is customary for archæologists to distinguish two groups, viz. *Masei* (made by polishing) and *Dasei* (made by striking), to which S. Yagi has added a third or transitional type. I do not look upon this latter distinction as fundamental. In the case of spear and arrow-heads, however, the sharpening of the point or edge, or smoothing of the butt may be regarded as the transference of an innovation to an older type, whereby the efficiency is increased. The presence of unobliterated chipping marks in a celt finished by polishing can scarcely be considered as more than an indication of careless technique. The same persistence is found, as will be seen presently, on some of the axes which are detached by erosion. Though interesting as clues to the processes of manufacture, these specimens do not form a class by themselves.

Although one cannot always speak with confidence regarding the function of implements and utensils of the neolithic phase in Japan, it is advisable to attempt some arrangement according to the service which they appear to have rendered. On the whole, the following classification seems to be appropriate and in this order I shall describe them.

1. Axe. 2. Adze. 3. Mallet and Hammer. 4. Chisel.
5. Scraper. 6. Hoe. 7. Sickle. 8. Knife. 9. Saw.

* See Appendix D.

10. Grindstone and Whetstone. 11. Awl and Drill. 12. Bodkin and Needle. 13. Drill Bow. 14. Drill and Spindle Weight. 15. Mortar and Pestle. 16. Paddle or Spatula. 17. Boat. 18. Sinker. 19. Nozzle of Floating Bladder. 20. Fishing Hook. 21. Gaff. 22. Harpoon. 23. Pitted Stone. 24. Nondescript Objects.

1. AXE.

Like the neolithic axe of Europe and America, that of Japan exhibits various degrees of the conical form. Occasionally it is quite triangular, No. 6, Fig. 15, but sometimes quadrangular, No. 2, Fig. 15, Nos. 1 and 2, Fig. 31, and Fig. 32. The axe or chisel of Formosa is sometimes square, Fig. 18. Usually the edge is ground on both sides, but occasionally as in the case of No. 2, Fig. 31, from the province of Ōsumi in Kyushu, it is bevelled on one side only. It would perhaps be more correct to class such implements as adzes.

This type is common in Formosa, where it seems to be used as a chisel. The resemblance between No. 2, Fig. 18 and the specimen from South Kyushu (No. 2, Fig. 31) is quite interesting. Nos. 5, 6, 7 and 8, Fig. 18, are also from Formosa and are placed here for the sake of comparison. The Formosan specimens, are, however, often larger than these. The single bevel, *Kataha*, as it is called in Japanese, is also found in the island of Oshima in fair numbers.* Though rare throughout Japan, it appears to be not so uncommon in the north. No. 3, Fig. 15, is an interesting specimen, the grooves on the sides, especially

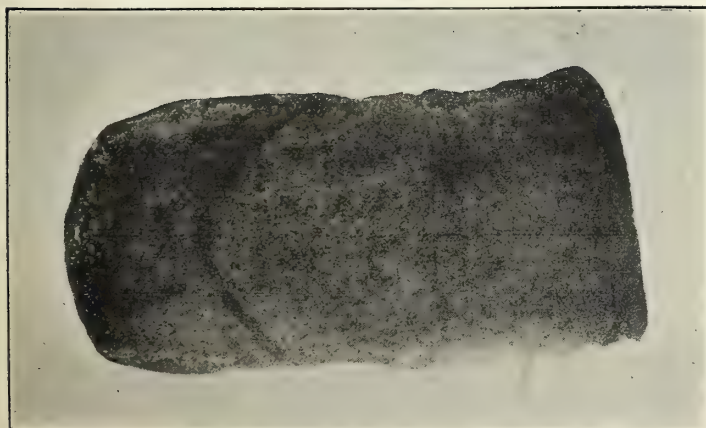
* T. J. Z. No. 71.

Fig. 31.



Axes and Chisels (Takashima Collection).
(Half size.)

Fig. 32.



Double Edged Axe of Red Serpentine.
(Actual size.)

noticeable on the left, being worthy of attention. This peculiarity is well seen in No. 2, Appendix C, and results from the method of detaching the axe by erosion. The parent block was rubbed with a stone saw or with wet sand and a stick (the groove being continuously moistened with water). When the block was large, grooves were made so as to define the future axe, then deepened; or fracture was finally employed. This process of grooving is well shown in the reject, No. 1, Fig. 22. The persistence of these grooves, seen on quite a number of the northern axes, seems to foreshadow the degeneration of the neolithic culture after reaching its height of excellence in the north of Honshu. Some of the neolithic axes, at least, were first outlined by chipping for, like the groove, the telltale irregularities on the surface have not always been erased. It is this lack of finish which has been regarded as a special type.

The largest axes come from the north, especially from the Hokkaido, but I have some fragments from the Kwanto which must have belonged to large implements. A good specimen from the Hokkaido is seen in Appendix C, No. 1. Occasionally quite diminutive axes are found in Honshu; No. 5, Fig. 31, though an exact model of the conical axe, is only 4 c.m. ($1\frac{9}{16}$ in.) in length, truly a pygmy implement. Though possibly a toy, it is more likely that it was used for fine carving on wood or bone. The small celt, No. 7 of the same figure, was probably also used as a knife or chisel. The comparatively small dimensions of Nos. 6, 7 and 8 in Fig. 15, raise the query whether, also, they were not employed as knives or

chisels rather than as axes. The finely scored lines running vertically from the edges of Nos. 6 and 7 favour this assumption.

Perforated axes are rare in Japan, No. 8, Fig. 15. Several from Britain are seen in Evans' work.* This hole rather suggests that the implement was suspended from the person, but it may have been intended to assist fixation to a shaft by thong or cord. In the above specimen the hole is excavated from both faces of the implement, the usual plan of perforating hard substances in this grade of culture. Pottery, however, is not infrequently pierced for the purpose of repair by holes drilled straight through the paste. The specimen illustrated in Fig. 32, is interesting on account of its double edge. It has been detached by erosion and was either hafted in the middle or perhaps used as a knife.

After being cut or chipped, these implements were finished by rubbing on grind-stones. For the preliminary work a rough stone may have been used, but for sharpening or finishing, a finer whetstone was necessary.

When the edge of an axe was dulled, or even broken, it could be renovated by rubbing down to a fresh edge. Specimens are therefore seen in which the length has diminished, while the thickness remains the same, like the stub of a pencil. In some of these specimens the obtuse edge must have impaired the efficiency of the implement.

The edge of the axe is not always at a right angle

* Ancient Stone Implements of Great Britain. pp. 142, 190 &c.

to the long axis. In Nos. 5 and 6, Fig. 16, this slanting edge is seen. In my collection there are some specimens closely approaching the knife form. One especially has its edge curved like No. 3, Fig. 17, but there is a doubt as to whether it was actually found within a neolithic site. Another specimen, with slanting edge, is simply an elongated pebble taken from gravel and sharpened by rubbing.

A singular type is seen in No. 4, Fig. 16. I lay special stress on the fact that it came from one of my excavations at Mitsusawa, for exceptional specimens deserve special authentication. I have learned to my cost that the forgery of specimens is quite a fine art. Within my experience "expert opinion" is a poor substitute for personal investigation. This specimen is very interesting because it is otherwise unknown in Japan, at least it has not been illustrated or described, while only one specimen exactly like it is given by Sir John Evans.* "The expansion of the edge" as the learned author remarks, "is very remarkable." He also calls attention to the roughening of the butt (visible in the half tone print) "by being picked with a sharp pointed tool," which, he suggests, was done in order to facilitate retention in a buckhorn handle. The roughening of the surface of an axe, apparently by deliberate picking, occurs, however, in other Japanese specimens, No. 6, Fig. 31, and in some from Formosa. The close correspondence in form between two apparently isolated specimens, in countries so remote as Japan and England, is truly remarkable, the more so,

* Ibid. p. 135.

as the specimen found at Malton had somehow penetrated the drift gravel and may be of much greater antiquity than the usual neolithic finds of Great Britain. Such coincidences are suggestive. They create the impression that primitive culture, even in its neolithic phase, has wandered over the wide extent of this planet, throughout epochs of unheard of antiquity. Another specimen, which cannot be traced to its source, but which I have every reason to believe genuine, came into my possession from an old collection. In essential respects it resembles the specimen recorded by Evans as coming from the lower Loire and known as *hâche à bouton*, or *hâche à tête*, because the butt end is furnished with a knob. It is not unlike that from Keystone, illustrated in the work of Evans,* but the blade is much longer.

2. ADZE.

Though the axe might have been sometimes hafted as an adze, that is to say with its face at right angles to the shaft, it is probable that this adjustment was exceptional in the case of the double bevelled implement which was probably often held simply in the hand as one would a knife or chisel.

The single bevelled axe may have been used as an adze. In the case of No. 3, Fig. 15 and of No. 2, Fig. 31, the edges are frayed or chipped towards the flat instead of the bevelled aspect and I have noticed the same appearance in other specimens. We may assume that the implement was used with the straight surface toward the artizan, but it might have

* Op. Cit. p. 137.

been held in the hand ; perhaps it was used as a chisel. "The lines," says O. T. Mason, "are very feebly drawn in savagery. The very same stone blade is inserted into an antler and mounted on a helve for an axe, attached to a forked handle for an adze, and bound to the shouldered end of a straight handle, for a chisel."* A number of the rough implements classed as axes were, perhaps, employed after the fashion of an adze, such as No. 2, Fig. 19, and those illustrated in Fig. 21. The latter were almost certainly hafted in the manner of the adze, as is the present Japanese hoe, but there are some considerations opposed to their utility as adzes, to which I shall presently refer.

3. MALLET AND HAMMER.

The specimens No. 1, Fig. 16 and No. 1, Fig. 17, are well known in Japan. The battered ends indicate service as an instrument of percussion. The depression in the centre with the ridge on either side show that it was hafted in the middle. These objects are carefully finished and give rise to the idea that they may have been used in battle. I understand that they are not always found in the primitive sites : it is possible that they are the "mallet weapons" of the ancient classics. Aston, in his translation of the *Nihongi*, illustrates one in this connection. A portion of one of these, (in all probability) with conically pointed ends was shown by N. Ono,† possibly the fragment No. 5, Fig. 17 is the same ; also two of 30 c.m. (11¾ in.) in length with pointed cutting edges. Nos. 2 and 4, Fig. 17

* "The Origins of Invention," p. 47.

† T. J. Z. No. 74.

are also somewhat elongated. No. 7, Fig. 16, is an interesting specimen which I have provisionally classed as a mallet, but the function is not clear. The shallow pits on the side will be referred to later on. A fine specimen, of more marked curvature, with decoration and probable phallic design at the extremity, has been illustrated in the Tokyo Anthropological Magazine.* Possibly these ranked as fetich.

Natural stones which have been used as hammers are of frequent occurrence; Nos. 4 and 5 of Fig. 20 belong to this category. Such stones were also used for bruising food, moulding pottery, &c. Stones in their natural state were of use in cracking nuts and the larger shellfish. Nos. 7 and 8, Fig. 22, appear to have been pestles; the latter shows traces of chapping in the centre and of rubbing at the edges. Nos. 3 and 4, Fig. 23, have, in other countries, been classed as hammers. They may have served for crushing nuts, &c.

4. CHISEL.

Some of the axe forms in all likelihood did duty as chisels. Nos. 2 and 3, Fig. 16, and 3, 4, and 7, Fig. 31, are polished tools of this class. Doubtless, also, roughly hewn stones were utilised for ruder work of this kind, but of these one cannot always aver a specific function. It is easy to make emphatic statements about these implements, but one wonders where the confident classifiers get their information. I cannot pretend to do more than make suggestions for further consideration and trust that my remarks on all but the self evident appliances will be taken in this way.

* T. J. Z. No. 79.

No. 2, Fig. 20, and Nos. 4, 5 and 6 of Fig. 19, together with No. 3 of Appendix C, might have been chisels, wedges for splitting wood, or even weapons. I have already remarked that these rough implements do not necessarily imply a lowly culture. I have found rather more rudely formed implements in the deeper mixed layers* of the shellheaps than in those which are superficial, but in the very lowest layers have met with highly polished and finished axes, the shape of which, be it remembered, is always different from that of the rough tools. This is enough to raise the assumption that the cruder implements had a special function. If we go by the verdict of experienced archaeologists in Europe, we ought to include Nos. 1, 2 and perhaps 3, of Fig. 20, among the chisels and picks, though the material is not always very hard.

Some of the chisel-shaped stones just mentioned give a clear metallic note when struck together. The wooden clappers of the Japanese (*Hyoshigi*) now used mainly by night-watchmen and mountebanks, but formerly inseparable from processions and official proclamations, may, conceivably, have been derived from sounding stones of this character.

5. SCRAPER.

Here we seem to be on firmer ground. Such objects as Nos. 1, 2 and 3, Fig. 19, resemble those which are generally recognised as scrapers, from the fact that the Eskimo and other people have such contrivances for the purpose of removing fat and connective tissue from hides.

* Possibly because these consist of earth mingled with shells. Perhaps the crude implements were thrown out on the surrounding soil which got mixed with shells when used to cover burials in former habitations.

The Scraper was probably of varied form ; perhaps No. 18, and almost certainly No. 19, Fig. 18, were used for scraping arrow-shafts and such like. Any sharp stone might have been used for this purpose.

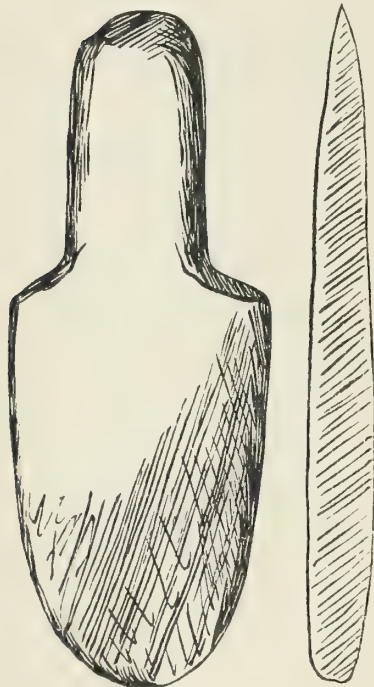
6. HOE.

The *Fundo*-shaped, or as we may call them, *fiddle*-shaped stones, which are so frequently found in the sites of the Kwanto, are a puzzle to archæologists. They are all roughly shaped but have a specific form which denotes a definite purpose. Transitional forms occasionally occur but are much less frequent than the special type, Fig. 21 and No. 4, Appendix C. At a first glance one might suppose that they were fishing weights, attached by the waist to the net. The waist is usually distinctly worn by friction and has evidently been attached to something. Many of these stones, however, are by no means ideal fishing weights. They have too much surface in proportion to body ; I have specimens not more than 5 m.m. in thickness. As a rule the stone is dressed mainly or entirely on one side, with the edge of the other trimmed into shape. The cutting edge often shows signs of wear. These remarks are based upon observation of quite a hundred of these implements. They appear to have been designed for cutting, hacking, or hoeing. They were probably not adjusted with their surfaces parallel to the haft. Had this been so, the edges would most likely have been trimmed equally on both sides. It seems to me that these implements were secured at right angles to the handle after the manner of an adze or hoe. The shaft might have been the branch of a tree cut at the

junction of a transverse branch, a few inches of which might have been left to furnish a support for the blade. Possibly, though less likely, a Y shaped branch was used for this purpose. Probably the implement was braced to the cross-branch, by cord or tendril. Stones of similar form have been occasionally seen in America.*

The records of the Sui dynasty, dating about the 7th century A.D., state that implements of stone were used for agriculture by the inhabitants of the Luchus.

Fig. 33.



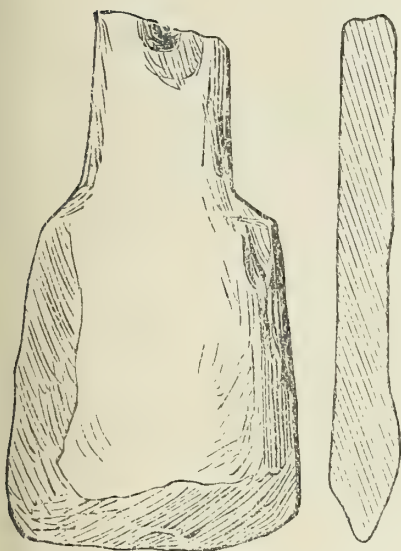
Their primitive culture closely resembled that which we are considering. The appearance of Nos. 1 and 3, Fig. 18, from Formosa, suggests the hoe rather than the axe, though it is not safe to prejudge their purpose. According to S. Makita, agricultural implements of stone are occasionally used in Korea.† An implement, similar to No. 1, but longer in the neck, Fig. 33, was found in Hitachi‡ and one with a broken stem, which had been perforated, was ob-

* 15th Annual Report of the Bureau of Ethnology of the United States, plate 53.

† T. J. Z. No. 2.

‡ Ibid. No. 157.

Fig. 34.



tained from Mutsu, Fig. 34. The resemblance of these to the "shouldered celt" of central India and South-eastern Asia, afterwards copied in the bronze "spade money" of China and the iron hoes of the Yamato, is deserving of notice. These considerations do not prove that the *fiddle*-shaped implement was

a hoe, but they create a probability that hoes of stone were used in the neolithic culture in this country.

Examination of these relics does not encourage the belief that the implements in question were utilised in cutting wood. The stone from which they are usually made is a kind of clay slate which, in the rough state, is apt to split on encountering an obstacle like the grain of wood. The largest known implement of this kind is 27 c.m. (about $10\frac{1}{2}$ inches) in length and the smallest 4 c.m. The former might have been used in tilling the soil, but is not an appropriate implement for cutting wood. On the other hand the small specimen is somewhat out of keeping with our notion of the dimensions of a hoe. Still, some of the iron hoes of the Yamato were not much longer in the blade.

Agriculture among the neolithic people in Japan has not yet been conclusively proved. No millet,

barley, buckwheat or rice has been found in the strictly primitive sites, though charred grain has been seen in the intermediate pottery, and marks on some of the pottery from Mitsusawa suggest the imprint of cereals. Vegetal matter is so excessively rare in the primitive sites that the absence of grain can scarcely be regarded as negative evidence. It is on record* that in the 10th century A.D., the captive Yezo were given food because they would not cultivate land, or pay taxes. It is probable, however, that some of them cultivated the soil, for it is elsewhere stated that they acquired the title of "field barbarian."

It is not unlikely that the *inao*† of the Ainu, like the Japanese Inari, was originally a cereal god. Mr. Yagi ascertained for me that the New Year decoration of rural districts in the Kwanto, consisting of five sticks attached to bamboo, represents the varieties of millet called *awa* and *hie*. Till recently, they were whittled after the fashion of the *inao*. The plural of *inao* is *nusa*, which may possibly be derived from *nu-ush*, "abundant."‡ Batchelor tells us that the Ainu divide millet into two classes, male and female, which are called the "divine husband and wife cereal, so SAY THE ANCIENTS.§ Therefore, before millet is pounded and

* Englishiki, A.D. 929.

† The *inao* is a stick, whittled in such a way that the shavings are left attached to form a bunch, or perhaps several, the whole bearing some resemblance to a cereal.

‡ According to the "Genkai," a Japanese dictionary, the word *Nusa*, which is also in use by the Japanese to signify shrine offerings and especially those of cloth (now paper), might be an abbreviation of *negi-fusa* (prayer flax). According to the "Kotoba no Izumi," (Fountain of Words) *nusa* was applied to various offerings to the god. S. Tanikawa, in the "Wakun Shiori," says that it may be a contraction of *nuki asa*, which implies flax in the fibre. I have also seen a statement that these offerings were formerly of the fibre of the paper mulberry; this might have facilitated the transfer to the paper of the present *gohei*. According to S. Yamanaka the word *nusa* does not occur in very ancient books and this opens the question whether it has not come from the Ainu.

§ "The Ainu and their Folk Lore," p. 204. I have emphasised this sentence.

made into cakes for general eating, the old men have a few made for themselves first, to worship." He goes on to say:—"Such communion as this is of the very essence of religion and will appear again more clearly when we come to discuss the subject of bear worship." The marriage of plants and communion with the corn god, long antedates the Christian era.* While it is possible that the Ainu derived the notion from the Yamato, yet, knowing as we do the intense conservatism that shields the myths and ritual of conquered peoples, the supposition is not wholly probable. It is certain that some of the folk lore of modern Japan has floated upward from the submerged primitive population.

We may take it that this ritual is very ancient and that the Ainu have had some rude notion of agriculture for many centuries. We cannot positively say that this antedated the Yamato invasion, but if not there was ample time in the Kwanto and in the north for hoes to be deposited in the primitive sites before they were abandoned. It is highly probable that hoes, if used at all, were frequently made of wood as in other instances of primitive culture. If we accept the fiddle-shaped implement as a hoe, the depth at which it is sometimes found in the shellheaps suggests an antiquity greater than that of the Yamato incursion. When we consider the elaborate art of the primitive people and the variety and ingenuity of the implements at their disposal, the probability is strengthened that some degree of hoe cultivation was included in the repertoire of their life cycle.

* Lectures on the Early History of the Kingships, by S. G. Frazer, p. 169.

7. SICKLE.

The probability that an agricultural stage had been reached would be increased were the implements shown in Nos. 1, 2, 3 and 4 of Fig. 35, proved to be sickles. Such devices might have been used to cut bamboo grass or reeds for thatching purposes, but so far as I know special implements of this kind are only found where agriculture, however elementary, exists. I think we may assume that these are sickles, indeed the present sickle of the Japanese appears to have been modelled upon a similar type.

8. KNIFE.

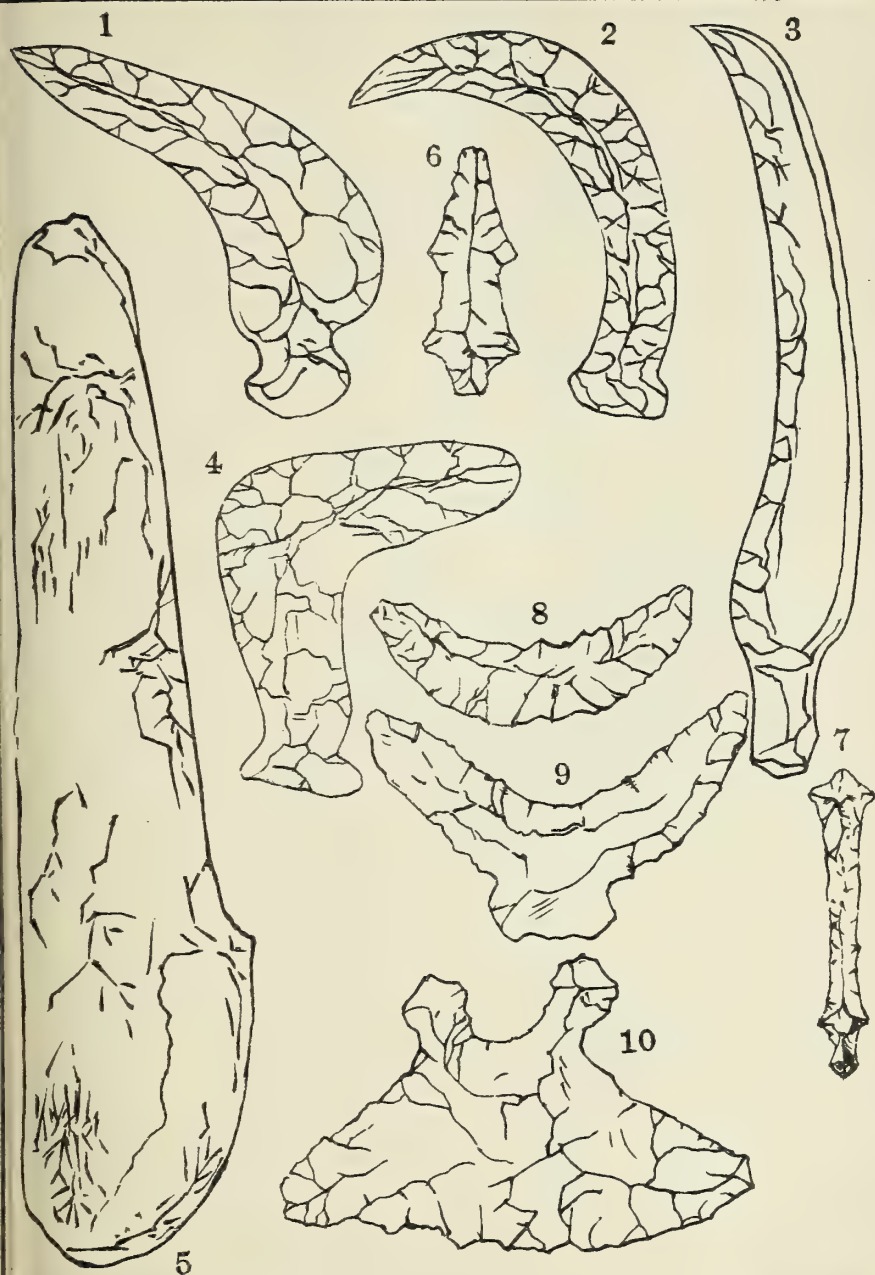
The knives of the neolithic phase were usually more or less roughly chipped and doubtless simple flakes like No. 6, Fig. 20, and No. 12, Fig. 24, were utilised for cutting. Some polished knives, however, have been described. No. 3, Fig. 17, Nos. 1 and 3 and perhaps Nos. 4 and 6 from the Kanda collection, Fig. 26, come under this head. Various forms are given in Figs. 36, 37, 38,* and 39† and in No. 5, Fig. 35. The holes seen in some of these specimens were intended for fixing the blades to a wooden or other handle. It is probable that these implements lingered into the Yamato culture.

Forms specially designed for knives are rare in the Kwanto, but common in the north. I have obtained three Kwanto specimens from my excavations, one from Negishi and two from Mitsusawa. In Fig. 24 two of these are seen, Nos. 3 and 11. The latter

* T. J. Z. No. 39.

† Ibid. No.

Fig. 35.

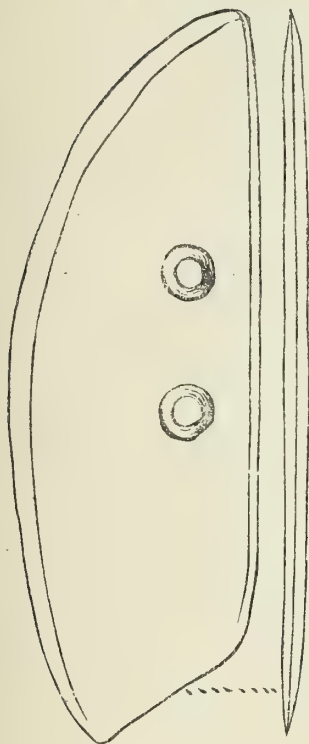


Sickles and Knives.

Nos. 1 to 4 from T. J. Z. No. 46. No. 5 from T. J. Z. No. 76.

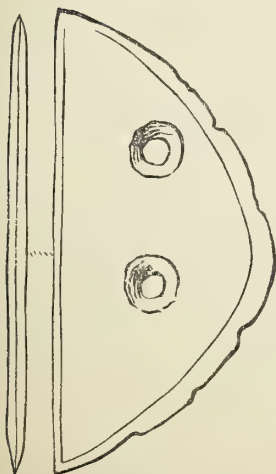
Nos. 6 to 10 from T. J. Z. No. 15.

Fig. 36.



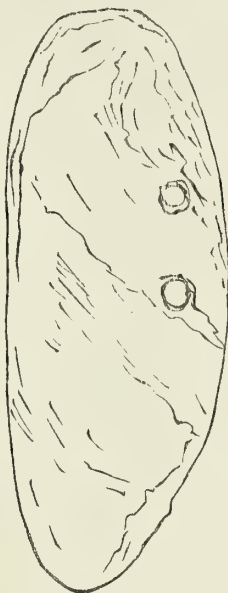
(Half Size.)

Fig. 38.



(Half Size.)

Fig. 37.



(Half Size.)

Fig. 39.



(Quarter Size.)

somewhat resembles the rare form, No. 5, Fig. 35. The knob on No. 3 and others of Fig. 24, were evidently intended to hold the blade in a handle. On the knobs of some specimens a material resembling pitch has been seen. Possibly these knives were sometimes attached to the person by a string tied to the knob. Rarely one sees two knobs, as in No. 10, Fig. 35. No. 4 of Fig. 24 has a projection at the side giving a useful purchase for the thumb, but interfering with fixation to a handle. No. 1 to No. 7 are known to Japanese as *Tengu-no-meshigai*,* or "rice spoons of the Tengu," a mythical parallel to the *Koropok-guru*. No. 4, Fig. 25 is interesting on account of the material, agate, which is not only rare but difficult to work.

Implements of somewhat similar shape are described by Evans as "kite or oyster shaped,"* but the knob is absent.

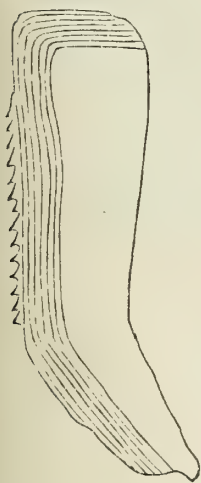
No. 9 of Fig. 24, Nos. 5, 10 and 14 of Fig. 25, represent other forms of the knife: the resemblance of the latter to the sickle may be noted. No. 10, Fig. 24, might have been either a knife or chisel. In Fig. 18 are some specimens from the collection of Dr. Takashima. Nos. 17 and 18 might have been used for cutting cord, but perhaps were intended for scraping and smoothing arrowshafts, or like appliances. No. 15 resembles a knife rather than a drill or spear-head. The material of which the majority of these

* The *Tengu* were goblins of the woods and mountains. (Chamberlain's "Things Japanese" p. 437). In China the term is used for a meteor. The characters mean "Heavenly dog." According to the "Wakan San-Sai Zui" or Illustrated Encyclopedia of China and Japan, the word was specially applied to a meteor which made a sound when falling. A meteor which did not produce sound was called *Kyô-fu* or mad fellow.

northern implements and weapons are made, such as knives, drills, arrow and spear-heads, is usually a kind of chert. It resembles flint in many respects, including its conchoidal fracture and, like it, becomes changed in colour from prolonged exposure or contact with soil. The surface of the implements made of it may be brown, pale green, or yellowish grey, while the body is usually dark. Sometimes, however, the substance is light brown or grey throughout and may be nearly white. It is rather more brittle than flint. Occasionally these implements are of jasper. In Fig. 42, No. 8, is seen a knife or cutter of bone.

Fig. 40.

9. SAW.



Some of the flaked knives, with their uneven edges, might have acted as saws. An illustration of a properly toothed saw, from Higo, is given in Fig. 40.† This is very rare, if not unique.

10. GRINDSTONE AND WHETSTONE.

These are found in various sizes and degrees of roughness. For finishing and sharpening implements a finely grained stone was employed, Fig. 41. Possibly No. 7, Fig. 22, was used for smoothing objects of wood. No. 2 of the same figure is of soft porous lava which has been grooved by acting as a file; No. 3 is a triangular hone or file of pumice stone, adapted to finishing bone or hard wood.

* Op. cit. pp. 303-4.

† T. J. Z. No. 53.

Fig. 41.



Hone for finishing and sharpening Implements.
(One Third Size.)

11. AWL AND DRILL.

Next in importance comes the boring tool. By such a contrivance holes were made in wood, stone, pottery, skin and cloth, for the purpose of binding together or attaching by thong or cord, but also in the first case, for the production of fire. No. 7 and perhaps Nos. 1 and 2, Fig. 25, may be set down as drill-heads. Perhaps No. 13 ought to be included, but I have classed it with the arrow-heads. In Fig. 18 a series of five drill-heads is shown from the collection of Dr. Taka-

shima. These were affixed to handles of wood or bone, turned to and fro with one hand, (awl) or rotated between the hands, or by means of a drill bow. The second method is quite effective; though primitive, it is largely used to this day. That its origin may have been very remote is possible from the existence of drill-heads during the palæolithic stage. The keeper of the famous chimpanzee, Sally (now deceased) at the

Fig. 42.



Awls and Bodkins.

(Nos. 3, 4, 5, 6, 9, 10, 11 and 13, from Takashima Collection.)

(Half Size.)

London Zoological gardens, exhibited a hole drilled through the wooden upright, which, he informed me, had been accomplished by that sagacious anthropoid, with a piece of stout wire.

It seems probable, as pointed out by Hough,* that the application of the drill to hole-boring preceded its use in fire production.

The awl was probably sometimes made of bone or horn, for perforating wood, No. 9, Fig. 42.

12. BODKIN AND NEEDLE.

Nos. 1, 2, 5, 6, 7 and 9 to 13, Fig. 42, are apparently awls or bodkins, for perforating various materials, probably chiefly cloth and skins. No. 4 may have had a similar function. No. 11 was perhaps used as a needle. I understand that perforated needles have been discovered in the sites, but have seen none of even diameter throughout. Fish bones with natural perforations are frequently encountered in the shellheaps; these, threaded through the foramen, would not have proved very effective needles.

13. DRILL BOW.

No. 3, Fig. 42 is so exactly like the small bow used for twirling the drill by means of a thong fastened to either end and turned round the shaft, that one has little hesitation in saying that this was probably its purpose. We may state, moreover, that if it was used for boring holes it was also employed in the production of fire by friction.

* O. T. Mason, "Origin of Inventions," p. 55.

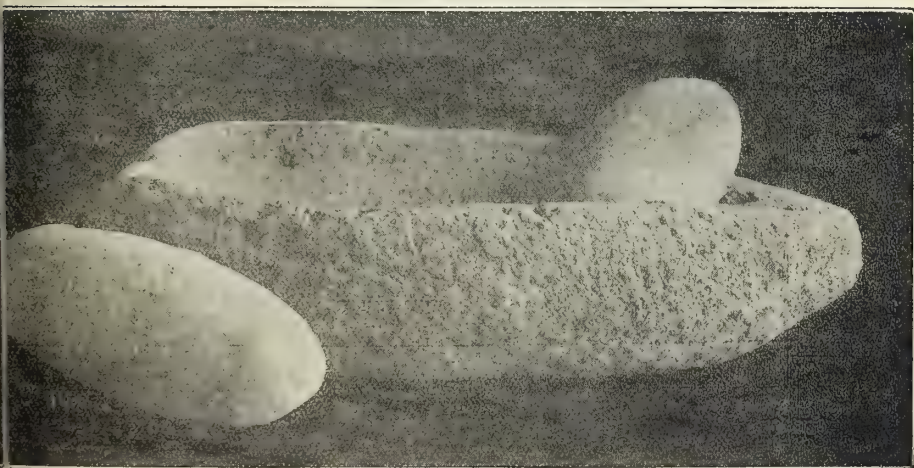
14. DRILL AND SPINDLE WEIGHT.

No. 1, Fig. 23 might have been the head of a knob-kerry. More probable is the view that it was intended to give momentum to the primitive drill, or spindle. These objects are by no means common. No. 2 of the same figure was perhaps a spindle weight. One or two have been seen with simple decoration. Occasionally they are made of clay. There can be no question that the primitive people spun and wove. This aspect of their culture, though unwritten, is not unrecorded, for the earliest attempts at pottery making with which one is acquainted in Japan, bear on their surface the impression in reverse, of textile fabrics. These will be treated under pottery decoration.

15. MORTAR AND PESTLE.

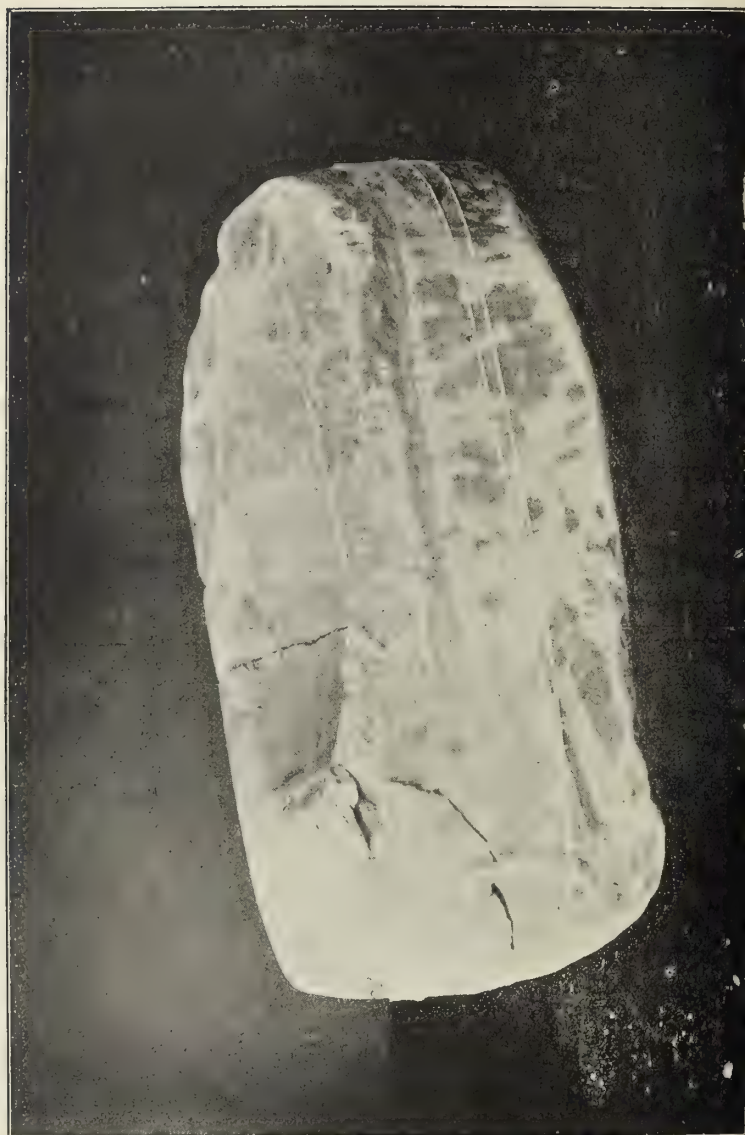
Fragments of primitive querns or mills are to be

Fig. 43.



Quern and Milling Stones.
(Quarter Size.)

Fig. 44.



A Mortar or Mill.
(About one third size.)

found in most of the neolithic sites, but one seldom sees them entire. Figs. 43 and 44 are from my excavations at Mitsusawa. The former is of rough lava which may have come from the province of Awa (Bōshū) as it does at the present time. When freshly cut this stone is soft, but hardens on exposure to the air and is much in vogue for building material. Many of the present day mills are quite primitive in their construction. This specimen is shallower at one end than the other; the pestle was moved to and fro along this surface, probably with both hands.

It is slightly concave on the bottom and a small hole permitted the ground roots, nuts, cereals, or other food, to pass on to a mat or other receptacle. The material of Fig. 44, appears to be a sandstone, but is much softened by prolonged inhumation. The cavity is round and the pestle was probably held vertically. The specimen seen in Fig. 45 is mounted

Fig. 45.



Ishizara or Stone Plate.
(Quarter Size.)

on feet and the cavity is shallow. These are called *Ishizara* or stone plates, but their function was

Fig. 46.



Mortar.
(*Tokyo Imperia Museum.*)
(**Four-fifth Size.**)

(1) Fig. 47.



Mortars.
(**Quarter Size.**)

probably milling. The material is also rough lava. Fig. 46 is an unusually small mortar, about 7.5 c.m. (3 in.) in height and 14 c.m. (5 $\frac{3}{8}$ in.) in length.

In Fig. 47, No. 1 is simply a slightly hollowed stone, No. 2 is perhaps a natural stone, 3 is oval with a round hole in the bottom and 4 is a round flat stone possibly for crushing and mincing food. The pestle was usually a natural cobble, such as seen in Figs. 22 and 43, but it may be, as has been suggested in other countries, that some of the stone batons were used for this purpose. I have, however, seen but few of these that are suitable for milling and none that have marks of friction. Fig. 48 shows what seems to be

Fig. 48.



Upper Milling Stone.
(Takashima Collection.)

an upper milling stone, an exceptionally rare occurrence in the primitive sites.

16. PADDLE OR SPATULA.

Round and oval stones such as Nos. 4, 5 and 6,

Fig. 22, and smooth flat stones are frequently met with. In other lands the former have been described as sling stones, but I question whether this is more than a guess. We are equally entitled to think that they were small hammers for chipping arrow-heads &c., or for smoothing and moulding pottery. They are used with this latter object in Formosa. The flat smooth stones are even more likely to have been paddles or spatulæ for pressing and smoothing pottery, but this is conjectural; probably bamboo and wood were employed in a similar manner.

17. BOAT.

Boats were used by the primitive people. The presence of neolithic remains on the islands around Japan proves that their boats were large enough to traverse 50 miles or more, of open sea. The Ainu have a tradition that the Koropok-guru had boats hollowed out of logs and also constructed of a wooden framework covered with grass. The specific mention of textile material for covering this framework, may possibly be a survival of a southern culture, like the poisoned arrows and the planting of fetich skulls around the Ainu dwellings. Skin covered boats might have been intended. A dug-out canoe much decayed, kept in the Hachiman Shrine at Taiho village in the province of Hitachi, has been described by T. Kawasumi.* It is 21 ft. in length, 2 ft. wide and 1 ft. 8 inches high. Unfortunately it is not stated whether neolithic remains were found in the marsh from which it was

* T. J. Z. No. 145.

extracted. This is said to have been formerly a lake. The shrine is claimed to date from the period of Taiho (701-703 A.D.) and the canoe is presumed to have been found about that time. Another ancient dug-out canoe is kept in the Matakiri shrine in the province of Awa.* It is 7 ft. 5 inches long and about 1 ft. 8 inches in breadth. It is obvious that these boats could only have been used in closed waters such as rivers, lakes and estuaries.

The devices for fishing, hunting and otherwise capturing animal food were well abreast of the advanced neolithic stage of culture. Traps, gins and other artifices which had accumulated during the experience of thousands of generations, were doubtless included in the primitive armamentarium; but most of these have disappeared through decay. Enough remains, however, to give one a fair idea of the apparatus designed for fishing, the horn and bone of which it is partly composed, having fairly well withstood the ravages of time. To Dr. Takashima, an eminent dentist of Tokyo, who has recovered some hundreds of horn and bone specimens from the northern provinces, I am much indebted for many of the following illustrations. Owing to his kindness, I am able to present these for the first time.

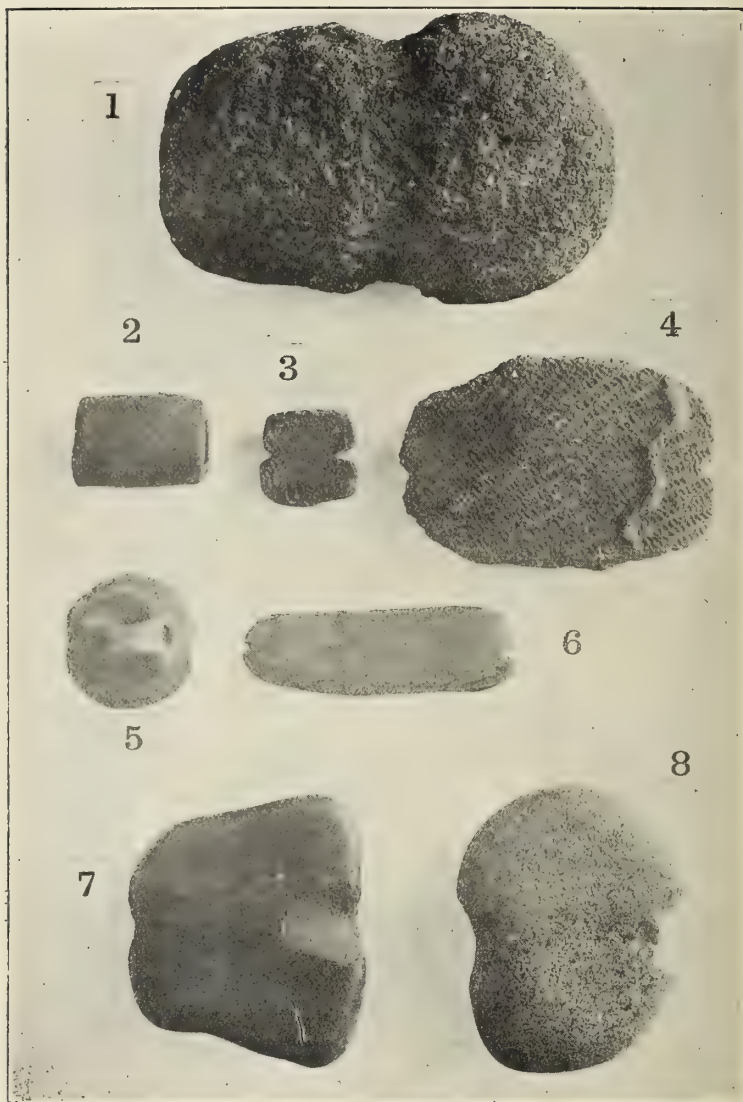
Nets were used in fishing. The net design is frequently met with on the pottery.

18. SINKERS.

Fishing weights of stone are quite common and potsherds were also used for this purpose. Samples

* T. J. Z. No. 102.

Fig. 49.



Net sinkers of Stone and Potsherds.
(Half Size.)

are given in Fig. 49. No. 1 is interesting and rarely found in the primitive sites, though in common use at the present time. It is a curious coincidence that much the same kind of sinker has survived in Britain from neolithic times. This stone is sometimes described as a hammer, but those that I have seen are made of rather friable lava and would not stand much concussion. I have more than once seen these objects placed on tombstones, in fishing localities. No. 2 is a tube of pottery, a small sinker still favoured by fishermen. I found it in the Negishi site. It is somewhat coarser than the modern one, is much softer and destitute of glaze. Nos. 3, 4 and 5 are potsherds, cut to hold the retaining string. No. 6 is grooved in the same fashion but is made of stone. In No. 7 each edge has been nicked by a single blow and in No. 8 grooves have carefully been ground on either side.

Objects of pottery, of narrow spindle shape, or roughly cylindrical form and perforated like beads, are by no means rare; it is not at all unlikely that some of these were used as fishing weights, but I have placed them among the ornaments.

19. NOZZLE OF FLOATING BLADDER.

It is supposed that the upper edge of the net was sometimes floated by means of skin bags or bladders, distended with air, as well as by means of light wood, &c. This notion is based upon the rare occurrence in the shellheaps, of bone or horn objects of the same nature as Nos. 6 and 8, Fig. 27. These, it has been suggested, served as nozzles, by which the bags were inflated. I must confess to a little doubt on this

point, but am far from denying that they might have served this object. It is quite possible that, as in other lands, such bladders were attached to a harpoon in order to exhaust large fish, or water mammals.

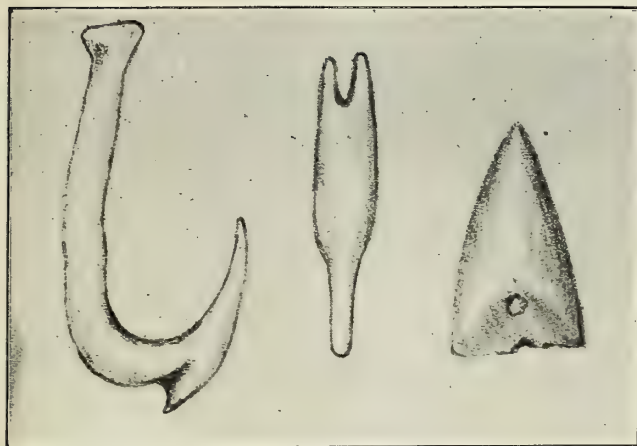
20. FISHING HOOK.

Fig. 50.



Nos. 1 and 2 of Fig. 27 are interesting and rare specimens of the staghorn fishing hook, the first being provided with one, and the second with two barbs. By rare good fortune Dr. Takashima also obtained a specimen illustrating the process of manufacture of a hook from the antler. This might have been broken in the process and thus discarded, Fig. 50. The hook was carved from the solid piece and only detached when finished, or nearly so. The cuts at the junction of the hook with the parent mass, are clean and might have been done with a sharp pen-knife. The antiquity of these specimens is, however, beyond dispute. The notches for attachment of the fishing line deserve attention. These are also to be seen in Nos. 3 and 4, Fig. 27, leading one to believe that they also were fishing hooks. Fig. 51, shows a large fishing-hook, illustrated by N. Ono.

Fig. 51.



Fishing-hook, Arrow-nock and Arrow-head of Bone. From the
"Senshi Kōko Zufu," by Ono Nobutaro.

21. GAFF.

What appears to be a gaff hook is illustrated in Fig. 27, No. 7. It is perforated at the blunt end and somewhat flattened as if for adjustment to a staff.

22. HARPOON.

The beautiful and unique example of a detachable harpoon head, made from a young antler, with a stone point, seen in No. 5, Fig. 27, is fitted with three barbs on either side, not to mention the prongs, one of which is broken. The stone point, which is unfortunately incomplete, is cemented to the cleft in the head by a material resembling pitch. The distal part or clasp, is ornamented by being carved so as to project above the surface of the head, thus giving an air of independence, whereas it is actually of a piece with the latter. The head is perforated longitudinally for the reception of the shaft and transversely for the attach-

ment of the thong which connected the point of the implement with the hand of the hunter when the shaft was withdrawn.

Other examples of the detachable head are given in Nos. 2, and 5 of Fig. 28; the hole for the retaining cord or thong is between the two barbs in the former and between the point and barb in the other. No. 2 was probably inserted into a socket of stag-horn or bone, while No. 5 is perforated at the base for insertion of a shaft. I am inclined to regard No. 4 as an arrow-head rather than as a harpoon, but it may have been the latter. It has been affixed to a shaft by one side only (reverse), which is flattened and worn, but this may have been merely a stalk to fit a carrying socket. Perhaps it corresponds to the toggle harpoon of the Salish Indians.* In the foregoing specimens the holes have been drilled from both sides.

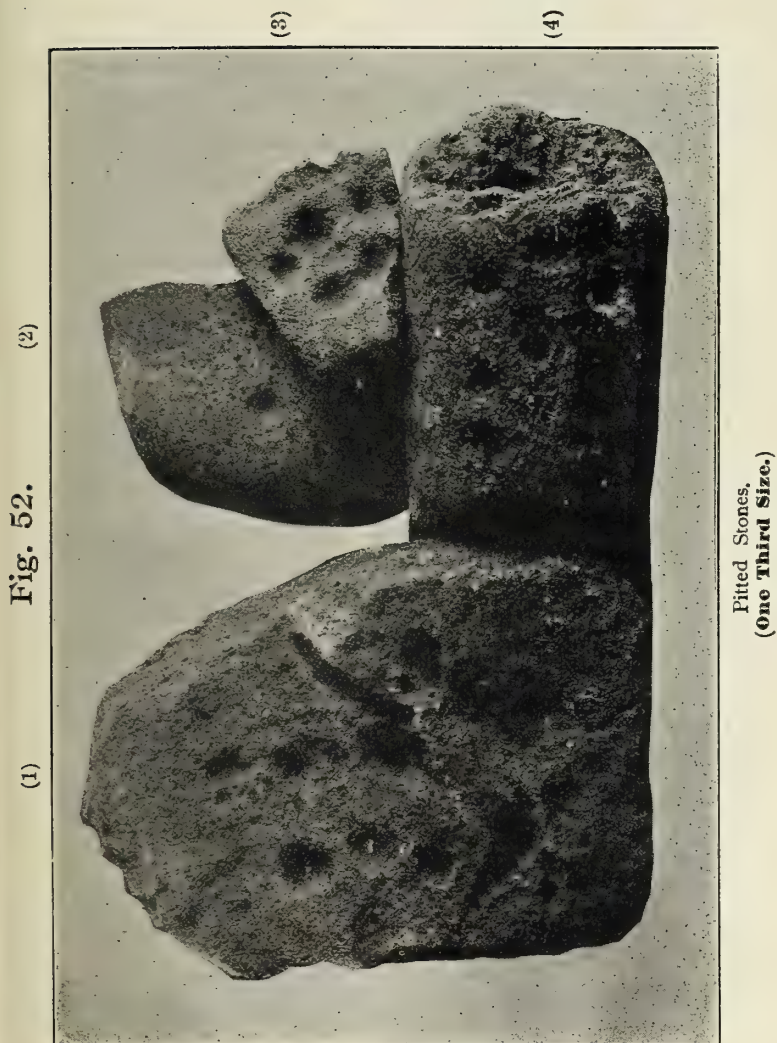
Nos. 1, 3, 6 and 7 belong to a different type of implement. No. 3 might be a two barbed fishing hook, the others appear to belong to the class of double barbed spear or javelin, sometimes also called harpoon. The pitch cement is still to be seen. No. 7 seems to have been broken and imperfectly re-sharpened. The specimens in Fig. 29 belong to the same type as those illustrated by Evans† and Lubbock,‡ from England and France, which carry us back to palæolithic times. Nos. 1 and 4 are from the Mitsusawa site. S. Yagi has described and illustrated a harpoon head imbedded in the head of a large fish.§

* Mason, "The Origins of Inventions" p. 284.

† "Ancient Stone Implements of Great Britain" p. 505.

‡ "Pre-historic Times" p. 110.

§ "Nihon Kōkogaku."



23. PITTED STONES.

Pits or hollows are not confined to any special object of stone, but are to be found on many kinds of implements and utensils finished by friction, as well

as on some chipped and flaked and on otherwise natural stones. They may be seen in Figs. 16, 23, 41, on many of the stone clubs or batons, and in Fig. 52. The latter is a group of four stones; No. 1 a flat piece of lava with hollows drilled and apparently cut; No. 2 the reverse of a crude mortar with a drilled pit; No. 3 a piece of flat and ground sandstone, drilled in a similar way; No. 4, a fragment of a stone post or baton also covered with holes. It would be rash to attempt to give a definite explanation of these. If regarded as a vestige of religious activity they might seem to have been intended as receptaculi for the nourishment of the god, as reminders of favours solicited or as punishment for wishes unrealised. Utensils are not unfrequently treated as fetich in the primitive life so that this view is not incompatible with the fact that these pits are often found on mortars and other contrivances. Perhaps it is safer to look for a more prosaic motive but I cannot see one that is entirely unobjectionable. Such holes might have been caused by the point of a drill inadvertently penetrating a piece of wood resting on the stone, but this does not explain why some of the holes are undrilled. Nor does the suggestion that these holes were used to steady the butt of a drill, account for all of them. Some might possibly have been intended to hold nuts while being cracked, or to contain the inflammable dust of soft wood which charred and finally ignited by the friction of the fire drill. But the edge of a mortar, Fig. 43, would be a most unlikely place for such holes. On the other hand it is not impossible that some

were used as a quipu. The fact that these holes are usually found on rough and rather soft stone, such as lava, conveys a suggestion that they were sometimes designed for rounding off the ends of wooden appliances e.g. arrow or spear shafts. I do not recollect having seen any on axe-heads. We may provisionally suppose that they were produced fortuitously or intentionally during the performance of one or other of the routine tasks of the primitive life. There is no reason to suppose that they all originated by a single process. Pitted stones of large size are found throughout Japan, some of which closely resemble those of Europe, but I have ascertained that in many cases these depressions are produced by children in play, who grind clay and pound grass on sundry stones. The frequency with which these pits occur on the large stone batons may have some significance. Depressions occur on modern grave stones for the purpose of holding offerings to the deceased.

24. NONDESCRIPT OBJECTS.

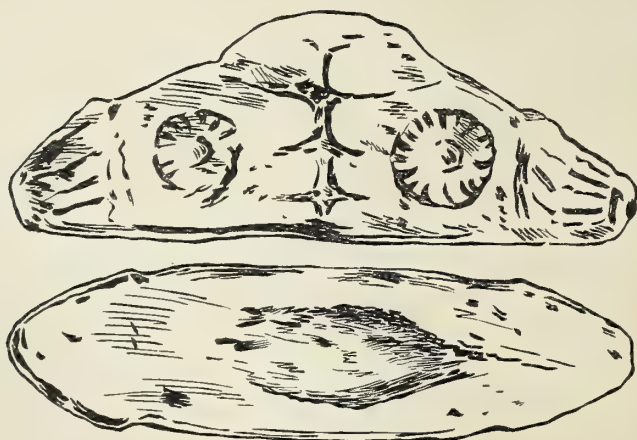
Objects of quite unknown function are, as may be supposed, found among others which are sometimes open to question. The most interesting of these are the usually ornate stones called "stone head coverings" by the country folk of Hida, Fig. 53. They are found mainly in this province but also in Shinano, Mutsu and even in Yezo. Some of them appear to be of phallic design. It is possible that they were totem stones and I think it not unlikely that the popular title of head covering may be appropriate. The Ainu wear various objects in the fore part of

Fig. 53.

A.



B.



(Half Size.)

their crowns. The latter have various names such as *ekashpa-umbe* or "ancestral head-gear." Some of the clay images of the primitive sites, too, appear to have objects fixed on the head, though it is difficult to distinguish these from hair arrangement.

Fig. 54.



Dr. Takashima has recovered a similar object made of earthenware, Fig. 54. A hole runs longitudinally through the base as if for attachment by a cord.

Fig. 55.



$\frac{1}{10}$ Linear.

Fig. 56.



Among other quaint objects, Fig. 55 (much reduced) deserves mention though it is unsafe to hazard a conjecture as to its signification. Fig. 56 represents another stone of unknown purpose.

150 IMPLEMENTS AND UTENSILS.

With some hesitation I also place the carved stag-horn, Fig. 57, along with the head ornaments.

Fig. 57.



CHAPTER V.

WEAPONS.

Though the functions which we have ascribed to the foregoing objects are fairly consistent with their appearance, some of them may, on occasion, have served a less pacific purpose than has been attributed to them. The axe, the hammer, the drill or spindle weight and the chisel, for instance, may have sometimes played the parts of battle-axe, mace and spear. On the other hand lethal instruments, such as the bow and arrow, were probably used with greater frequency against inoffensive creatures than actual enemies. The following appliances may be recognised as weapons, or as accessories thereto.

1. Arrow-head. 2. Arrow-nock. 3. Bow-tip. 4. Spear-head and javelin-head. 5. Baton and sword. 6. Mace. 7. Sling-stone.

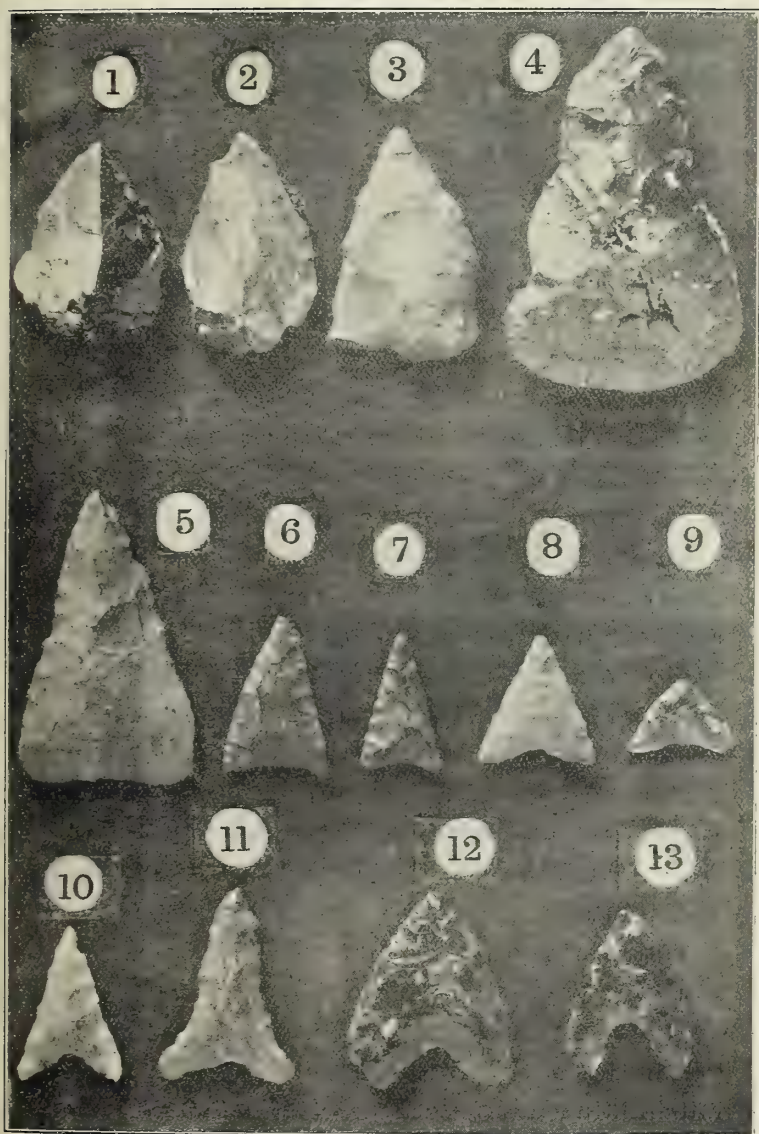
1. ARROW-HEAD.

Stone arrow-heads are found in small numbers in the sites of the Kwanto and farther west but become increasingly frequent as one proceeds north. The greatest numbers are found in Mutsu and Yezo. The variety of form and material is considerable but the resemblance to those of Europe and America is even more striking than in the case of the celts. We may arrange them into five classes, viz. leaf-shaped, triangular,

barbed, tanged and composite. The leaf form is seen in Nos. 1 and 2, Fig. 58, and in Nos. 1, 2, 3, 7 and 8, Fig. 59. In Fig. 58 we see the triangular variety, Nos. 3, 4 and 5, passing into the tanged form, Nos. 6 to 13. Nos. 1 and 2, Fig. 58 are very roughly made, are in fact little more than simple flakes, nor is No. 3 much less primitive. One might suppose that these were the product of the youthful artizan who had mastered only the rudiments of his craft. No. 1 was found in the lower layer of a shellmound at Mitsusawa, but Nos. 2 and 3 were taken from the upper stratum. Nos. 4, 5 and 12, which are of higher finish, came from the lower layer, consequently we do not regard the occurrence of rough forms in the deeper strata as indicative of a more backward culture, at least in this site, though it is in the type. No. 4 is interesting on account of the rounded base. Evans has drawn attention to this type in England. Like the example given in his work,* the base has rounded corners and is trimmed to an edge for insertion in a cleft of the shaft. The base is discoloured from long contact with pitch or other fixing agent. It is possible that this specimen formed the head of a javelin or spear. Nos. 1 to 5, together with Nos. 9, 12 and 13 came from the Mitsusawa excavation. Nos. 8 and 9, Fig. 25, are also interesting specimens of the barbed arrow-head. No. 13 of the same figure is between the triangular and leaf form, No. 12 a finer specimen in obsidian. The illustrations in the latter figure are one half linear. Less common varieties of the barb

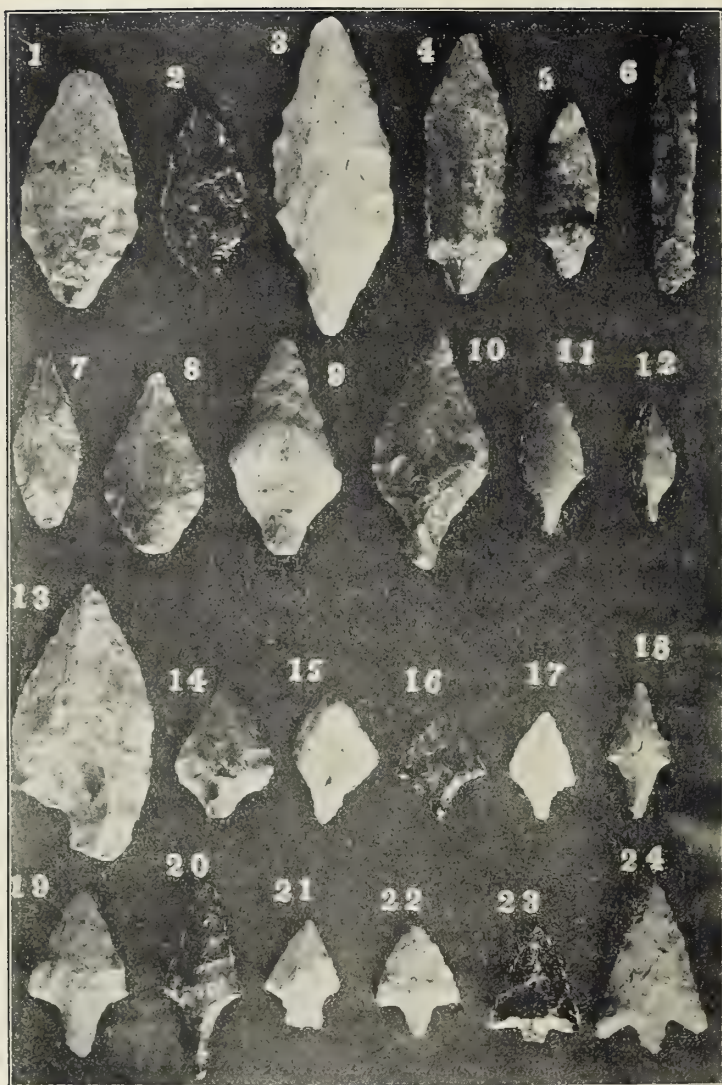
* "The Ancient Stone Implements of Great Britain." P. 395.

Fig. 58.



Arrow-heads of leaf and barbed Form. Nos. 1, 4, 9, 12 and 13, (Obsidian).
 2 and 3, 6, 7, 8, 10, and 11, Chert. 5 Jasper.
 (Actual Size.)

Fig. 59.



Leaf and Tanged Arrow-heads.

With the exception of Nos. 2 (Obsidian), 11 (Flint), 14, 15, 16, 21 (Agate), and 17 (Quartz), these are composed of Chert.
(Actual size.)

are seen in Fig. 60, Nos. 3, 4, 6, 7, 8, 10, 11, 12, 15, 16, 17, 22 and 23. The incurvation of the edges in Nos. 4, 6, 8 &c. was doubtless intended to hold the thong which sometimes retained the arrow-head in place. Probably the constricted bases of Nos. 9 and 20 served the same purpose. This type may be regarded as a modification of the leaf or tanged variety and is called the American type by Japanese archaeologists, as it is known on that continent.

Fig. 59 shows the leaf passing into the tanged form. The shape of No. 4 in this figure, is rather unusual, but is met with both in England and America. No. 6 was perhaps a drill. No. 13, which might be regarded as having either a unilateral tang or a single barb, is also of peculiar form, but occurs in England and America. It is illustrated in the Annual Report of the Bureau of Ethnology* and also in the work of Evans previously referred to.† Nos. 14, 15, 16, 17 and 21 are made of agate or quartz. Several of the specimens in Fig. 59 show a more or less pronounced combination of tang and barb. I think that the barbed is more common than the tanged variety in the Kwanto. Leaf and tanged forms seem to be common in the north.

Unusual tanged varieties are given in No. 7, Fig. 35, and Nos. 1, 2, 19 and perhaps 13 and 24 of Fig. 60. Perhaps the two latter were drill points. Nos. 1 and 2 are clearly arrow-heads and merit some consideration.

No. 1 belongs to the type which Evans has appropriately called "chisel-ended." It was known in

* Plate 41.

† Pp. 393-4.

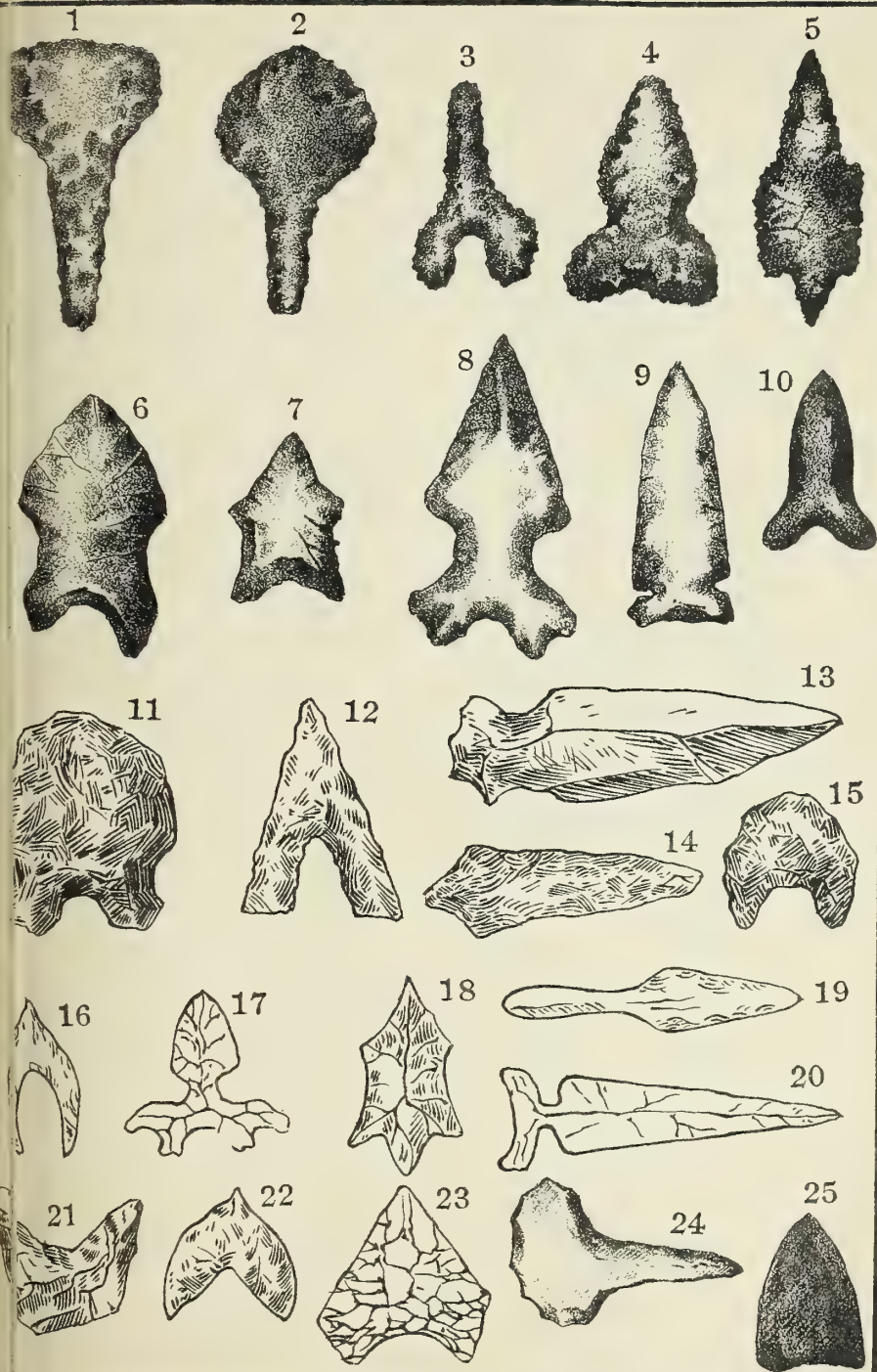
primitive Egypt and has been found in Britain, France, Denmark, Belgium, Germany, Spain and Portugal (Evans). Though various forms exist, they embody the same idea, namely that of a broad cutting edge, instead of a sharp point. Sometimes the edge is concave as in No. 21, Fig. 60. It is doubtful whether some of the latter might not have served as scrapers, but in the specimens which I have seen, the absence of signs of wear in the concavity suggests that they were arrow-heads. The chisel-ended type persisted in the iron arrow-heads of Persia and we shall find that it was retained by the Yamato. The transformation from the flat knife cutting edge to the concave type, ending in the fishtail or double pointed form is highly interesting. Though the two-pronged spear is well known in other lands, the double pointed arrow-head reached its highest development in Japan within historic times. It may be that the primitive people of Japan copied such forms as Nos. 1 and 2, from a Yamato model, thinking to do equal execution. No. 2 is an exact copy of a familiar iron arrow-head of the Yamato culture and is almost certainly taken from the latter.

The combination of tang and barb assumes various forms e.g., No. 24, Fig. 59, and Nos. 5 and 18, Fig. 60. There are many varieties, but I have not seen one like the deeply tanged and barbed specimen exhibited by Evans.*

Arrow-heads of agate or other uncommon stone, not easy to obtain and difficult to work, are less rare

* Op. Cit. Fig. 318 A.

Fig. 60.



Arrow-heads of unusual form.

Nos. 1 to 5, after Kanda.
 Nos. 6 to 10, and Nos. 24 and 25, after Ono.
 Nos. 11 to 15, from T. J. Z. No. 93.
 Nos. 16 to 20, from T. J. Z. No. 160.
 Nos. 21, 22, and 23, from T. J. Z. Nos. 56, 94 and 64.

than one would imagine. I have seen them of even smaller size than Nos. 16, 17, 21 or 22, Fig. 59, too small to be used for large game, or even in battle. It is possible that these were not intended for use but rather for barter or as a sign of opulence. Whether they imply an actual currency or not it is probable that they formed a useful medium of exchange. Agate or other rare stone, however, might have had a superstitious efficacy attributed to it like the belief in the silver bullet, which still lingers in Europe.

Polished arrow-heads are exceedingly rare, but one occasionally sees specimens, the points of which have been smoothed and a few instances have been reported of polished edges.* In the case of Nos. 9 and 12, Fig. 58, the centre of the base is smoothed for better adaptation to the cleft in the shaft. No. 25, Fig. 60 will be referred to later on.

I have already called attention to the manner in which a stone harpoon point has been fixed in a cleft shaft by some cement, probably pitch or resin. In Fig. 30 are seen two specimens of high interest, No. 2 and 3, in which a holder made from an antler sustained the arrow-head by means of a resinous cement, still present in these specimens, while itself inserted in a hole drilled in the shaft and retained in place by means of the same material. Nos. 5 to 9 of the same figure are arrow-heads of bone and stag-horn. The last three might be set down as drills, but the rounded tang would be unsuitable for rotary motion even if held in place by the cementing material which

* S. Tanaka, T. J. Z. Nos. 54 and 67.

is still visible. In Fig. 51, a bone arrow-head of different form is given. It is perforated at the base like No. 4, Fig. 28.

2. ARROW-NOCK.

What appears to be an arrow-nock of bone or horn, No. 2, Fig. 51, might perhaps be a holder like the above, but it is probable that nocks were sometimes made of bone as they were in Europe. It will be noticed that the slit in this object is shallower and consequently less suited to holding a stone head than those of Nos. 2 and 3, Fig. 30.

3. BOW TIP.

A few objects, which are presumably bow tips, for attaching the bow-string, have been recovered. No. 1, Fig. 30, is one of these and No. 4 is possibly the same, though I am somewhat doubtful about this. When I removed it, it was partly covered with vermillion. This might, however, have been accidental, as some shells containing this colouring agent were lying beside it.

4. SPEAR AND JAVELIN HEADS.

Heads of spears and javelins are not common. Perhaps some of the objects called chisels were used as spear-heads when occasion demanded; weapons, specialised for the destruction of human life, multiply as civilization extends. I regard No. 3 of Fig. 61, as a spear-head. Nos. 1 and 2 seem to be javelin or spear-heads; Nos. 4, 5 and 6, spear-heads, but they might have served as knives. Spear-heads of bone are mentioned in the Later Han writings (25-220

Fig. 61.



Spear and Javelin Heads.

1. (Flint). 2. (Silicious schist). 3. (Chichibu Chlorite-schist). 4. (Agate).
5. (Obsidian). 6. (Chert).

(Half size.)

A.D.) from the tales of travellers to Japan, but I have not seen one. A polished spear-head of stone has been

found in a field in the province

Fig. 62. of Tosa and one in Bizen, Fig. 63.

Figs. 62* and 63.† No. 6.

Appendix C, is a roughly finished spear-head of chert.



5. STONE BATON AND SWORD.

We now come to a series of stone objects, known to Japanese collectors as *seki-bo*, or stone rod (pole or club).

These vary from tiny specimens a few inches in length, which are rare, to bulky objects of about five feet and proportionately thick: these are not very common, but *seki-bo* from one to three feet in length are more frequently seen. It is characteristic of the great majority of these stones that they have a knob at one or both ends and in the smaller kinds this is usually ornamented. Now the question arises, did all these objects have the same purpose? If so, it could scarcely be a technical one, as many of the stones are too large for handling. They might have subserved religion, ceremony or ornament, but the latter has little probability and may be ruled out of court. Reasons will be presented later on for the belief that some of them had a religious significance and perhaps took part in ceremonial observances.

* T. J. Z. No. 50, M. Teraishi.

† I bid. No. 35, K. Wakabayashi.

There are points of difference, however, between these objects which justify the assumption that they did not all have the same function. Though the knob at the end is the rule it is by no means an invariable one. Although the majority are round, some are flat. So far as my limited observation goes, a considerable proportion of the smaller *Seki-bo* are flat. It is not improbable that some of these objects were really clubs or batons.

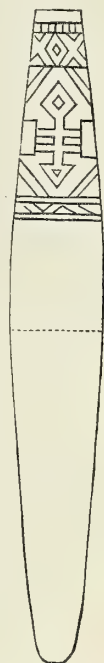
Fig. 64.



A handled baton, which recalls that of a police-man, Fig. 64, has been illustrated and described,* but though it probably came from a neolithic site, this is not quite certain. An interesting baton or sword has also been illustrated by D. Sato, Fig. 65.† It was found in Mutsu, is of obsidian and is elegantly ornamented with carving at the handle, a unique example of decoration in this glassy material.‡

Various objects in polished stone, shaped like swords and daggers, have been reported from time to time but I do not know of any that have been positively identified with the neolithic culture. Some that I have seen are obviously copies

Fig. 65.



* T. J. Z. No. 89.

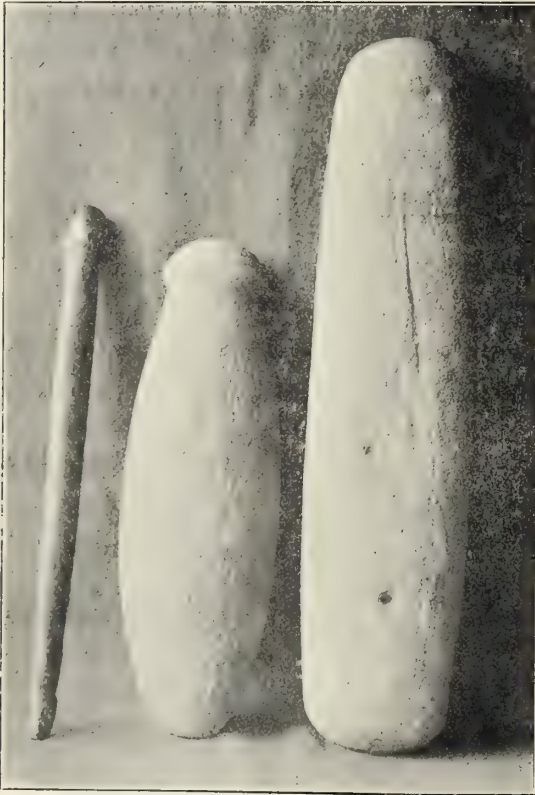
† Ibid. No. 35.

‡ No. 15, Fig. 25 from Yezo, also of obsidian, might have been used as a knife or dagger.

of bronze or iron weapons and were found in uncertain or unrecorded situations.

As the Yamato were known to have made copies in stone of swords, &c., it may be advisable to include the above with that culture until definite information is available. I have a fine specimen of a stone baton

Fig. 66.



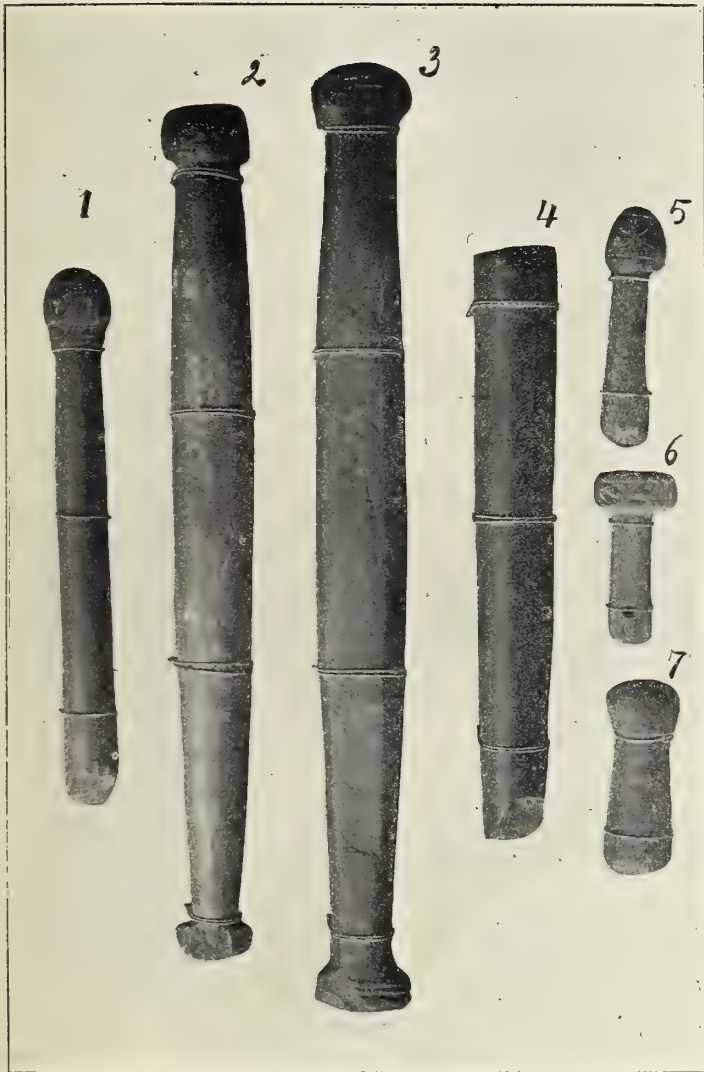
Seki-bo.

(Takashima Collection.)

in serpentine with tapering ends, which would have been a formidable weapon. It is said to have come from a primitive site in Idzu. The smallest of the three specimens in Fig. 66, and those of Fig. 67, were possible weapons. If we grant this, the transition to insignia of authority would present no difficulty, as this

has taken place in other cases. The mace, used on ceremonial occasions in Europe, is a direct descendent

Fig. 67.



Seki-bo.
Kanda Collection.
(Tokyo Imperial Museum.)

of the club or knobkerry. The rather elaborate carving on some of the *seki-bo*, shown in the accom-

panying plate, suggests a ceremonial or religious intent. That the shape does not always decide the nature of the object is evident from Fig. 68, which is merely a file of pumice stone from one of my excavations.

Fig 68.



6. MACE-HEAD.

Fig. 69.



Allied in function to some of the above, are mace-heads, if we may judge by their appearance, Figs. 69 and 70.* They are very rare, unless we include such specimens as No. 1, Fig. 23. Till quite recently the Ainu of Yezo have used stones to give weight to their

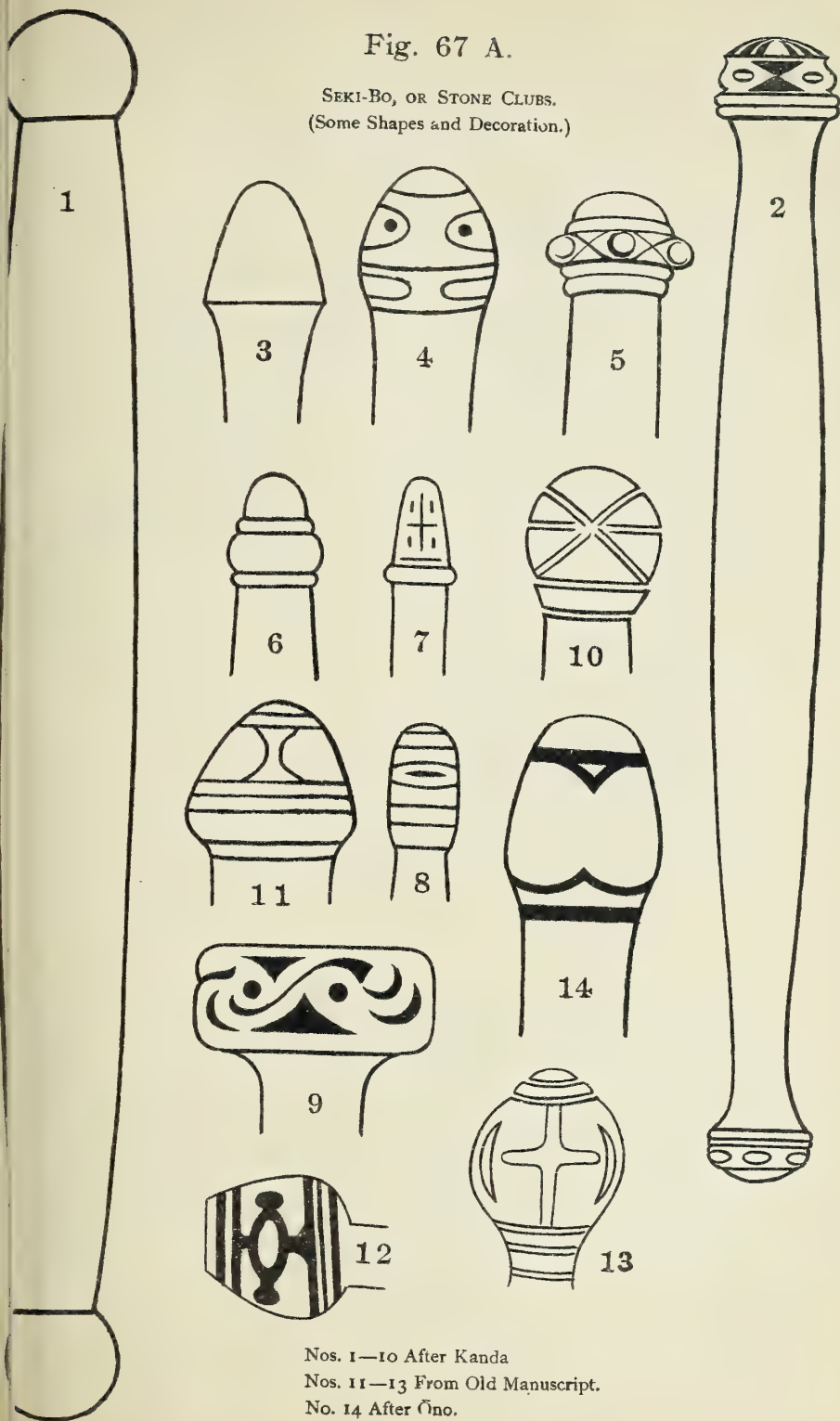
war clubs and, rather significantly, a stone resembling No. 1, Fig. 23 is sometimes a prominent ornament in the festival of the bear.†

* T. J. Z. No. 63. One has been illustrated with six projections.

† Ibid. No. 56.

Fig. 67 A.

SEKI-BO, OR STONE CLUBS.
(Some Shapes and Decoration.)



Nos. 1—10 After Kanda

Nos. 11—13 From Old Manuscript.

No. 14 After Ōno.



Fig. 70.

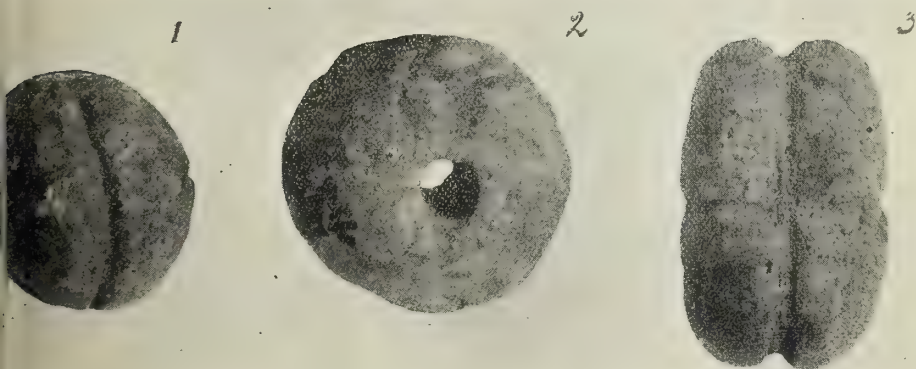


7. SLING-STONES.

In European and American works on archæology, the round stones so commonly met with in the neolithic sites are usually named "sling-stones," Fig. 22, Nos. 4 and 6. A little scepticism is permissible here. Though it is reasonable to

suppose that some were sling stones, they were probably of service in other ways which will occur to the reader. Though it is possible that the earthenware specimens in Fig. 71 were used in the sling or as bolas, it would have been quite proper to class them with the fishing weights.

Fig. 71.



CHAPTER VI.

THE CERAMIC ART.

In the south-west of Japan, not only are the primitive sites comparatively few, but pottery does not appear to be abundant within them. From the few samples that have been exhibited, the quality appears to be cruder and the decoration inferior to that of the Kwanto and the north. The type, however, is the same and the decorative motives are similar. Some fragments from Kawachi are distinctly like potsherds from the Kwanto.

In the Kwanto and north of Japan pottery is found in abundance. Nearly all of it is reduced to potsherds, in which condition it is found on the surface of the ground, in the shellheaps and deposits of the sites. In the deeper positions pieces partly broken, very rarely quite entire, occur; more frequently contiguous pieces are found which can be fitted together so that a vessel can sometimes be nearly or quite restored. When, by good fortune, this is accomplished, the oft-times bewildering conglomeration of lines, mouldings and excrescences resolve themselves into formal and ornamental designs of great beauty. In spite of coarse material, deficient technique in moulding and baking and prevailing lack of colour effects, many of the vases and other objects are so admirably proportioned and

harmoniously decorated that the defects appear rather as conditions essential to the whole presentment. Although this pottery is never turned upon the wheel and lacks the regularity of form attainable only by that process, it is the less untrammelled and roams into lavish conceptions of form and decoration, probably unsurpassed in any place or time. The artistic talent of later Japan was rooted in the prehistoric past.

The material of the primitive pottery is a coarse clay tempered with sharp sand and occasionally particles of quartz or small pebbles. There are many grades, however, from rough brick to the finest terracotta. In the Kwanto I have found the latter, especially in the upper layers of my excavations, indicating progress in the art. The finer grades are more frequent in the north of Japan, but I do not think that they greatly excel in quality of paste the superior kinds of the Kwanto, though they show some advance in form, due perhaps to contact with the Yamato culture and the influence of China upon the latter. Occasionally the primitive pottery is covered with a slip of finer clay, especially in that from the north.

The consistence of such ware depends upon the process of baking as well as upon the material used. As a rule this pottery is imperfectly baked. On section a dark streak, due to imperfect firing, is then seen in the middle of the paste. This occasionally extends to the outer or inner surface. The primitive pottery is never so hard as stone-ware but is sometimes uniformly fired, naturally a feature of the thinner vessels. The latter indeed are sometimes superior in this respect to the Yayoishiki or Intermediate pottery.

Fig. 72.



Potsherd showing "coiling" as a conventional decoration: fracture of vessel bottom at its junction with the sides, and stones, suitable for moulding clay.

The colour usually approaches that of terra-cotta, with varying shades running into grey, dark brown, or even black. The brown or black colour may even be uniform throughout the paste. Sometimes it appears as if intentionally applied to the surfaces only, but this effect might be due to soiling through prolonged use. I think that the deeper shades of red were artificially produced, perhaps by the use of hæmatite. This is to be distinguished from the occasional colouring by vermilion, which is not burnt in and may be removed by washing.

Many of the vessels were made by coiling. In this process the bottom is first moulded; then a strip of clay is adjusted to the edge and other strips are superimposed so as to build up the sides. In the case of narrow vessels such as bottles, the neck was probably moulded separately and then

applied. The segments were beaten and pressed together by paddles and the interior was smoothed by round or oval stones. Possibly those seen in Fig. 72 were used for this purpose. Here also is an interesting specimen illustrating the survival of coiling as a conventional decoration.

According to R. Torii, the Arizan tribe of Formosa make pottery by indenting a lump of clay with a stone and gradually deepening the depression by pressing from the outside against the stone. It is possible that a similar plan was sometimes used for making shallow vessels in Japan. The bottoms of vessels were probably upturned at the edge in a similar fashion before the coil was applied. Fracture at the bottom frequently leaves a ridge as in Fig. 72.

The sides may have been upheld by wickerwork, but I have only once seen any apparent trace of such a support. The preparation of the surface for decoration would naturally obliterate the marks in all but the most primitive stage of pottery making. Many of the vessels show the impressions of coarse textiles on the sides. While some fabric might have been wrapped round the piece to support it, I am inclined to suppose that this may have been done to prevent cracking during drying or firing. Experiments which I made show that the impression of the clay, by varying its density, acts somewhat in the same manner as tempering material in tending to prevent cracking of the paste.

The bottoms of vessels frequently retained the impression of the matting upon which they rested. It is possible that they were originally pressed upon a piece of matting to prevent movement during mould-

ing. Turning the mat would foreshadow the use of the potter's wheel. This impression seems also to have been retained as a decoration. In the same way, the patterns of leaves sometimes seen on the bottoms were originally merely impressions but sometimes show retouching, if not actual reproduction, as a decoration.

As our ideas of the uses to which vessels have been put are derived mainly from their form, I shall attempt some arrangement on this basis. We may be sure that one vessel often served several purposes. Since, in later culture, iron and other metals have taken the place of clay in the construction of cooking vessels, they cannot easily be mistaken for the jar or bowl; but it is otherwise with the primitive vessels. In the neolithic sites too, the vessels of wood and basket-work which formerly supplemented those of earthenware for certain purposes, have entirely disappeared. Hence it is apparent that any arrangement is apt to be misleading, though useful for the purpose of description. The following order is the best that occurs to me. 1. Cooking pot and pan. 2. Jar and vase. 3. Bowl and dish. 4. Cup. 5. Bottle. 6. Nipple pot. 7. Lamp. 8. Brazier. 9. Incense burner. 10. Strainer. 11. Stamp. 12. Spindle or drill weight. 13. Ornament. 14. Image. 15. Plaque.

1. COOKING POT AND PAN.

The cooking pot and pan may be taken as pioneers of the ceramic art. Clay, plastered on the inner or outer surface of a basket, needs only heat to convert it into a serviceable pan. This beginning of pottery-

making has been elucidated in other lands, but in Japan the crudest examples of pottery have passed the initial stage where the impressions of basketry remain after the support has been destroyed in the kiln.

Sometimes the bottom of the pot or pan is of an over-burnt bright red or yellow, and the surface is roughened by crumbling away from frequent exposure to the fire, while the upper portions and rim may be blackened from penetration of smoke from burning wood.* Sometimes, too, the interior is darkened by use, but usually because the paste is imperfectly baked. A combination of the above signs would prove that the vessel in question was a pot or pan, but unfortunately they seldom co-exist. Even the high colour and rough appearance do not often remain to guide us, but give place to the dull tone and polished surface of things that have long been buried under ground. In the absence of guiding signs like the foregoing, one can only class certain vessels as pots because they were eminently suited to cooking or bear a decided resemblance to others which have been so employed. I shall call the deeper vessels pots, and the shallow ones pans. The elongated vessels were obviously intended to rest amid the burning logs and in the ashes of the primitive hearth, which was the ground, with sometimes an enclosure of stones to confine the fire. Many vessels resembling pots are provided with perforated lugs, Fig. 73, 75, 77, and 86: in all probability these were intended to suspend the vessels or to give support, a device still employed everywhere.

* In some Egyptian pottery this blackening survived as a decoration.

Fig. 73.



Cooking Pot.

(Imperial University Collection.)

Fig. 74.



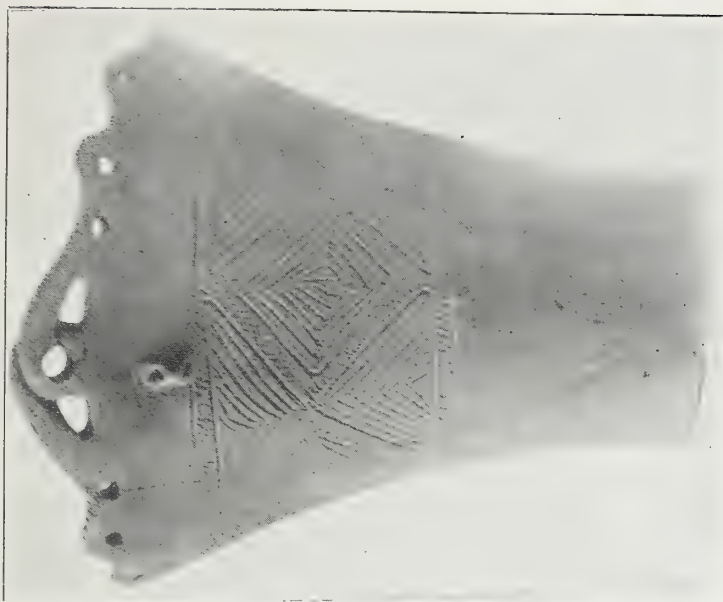
Cooking Pot.
(*Imperial University Collection.*)

Fig. 75.



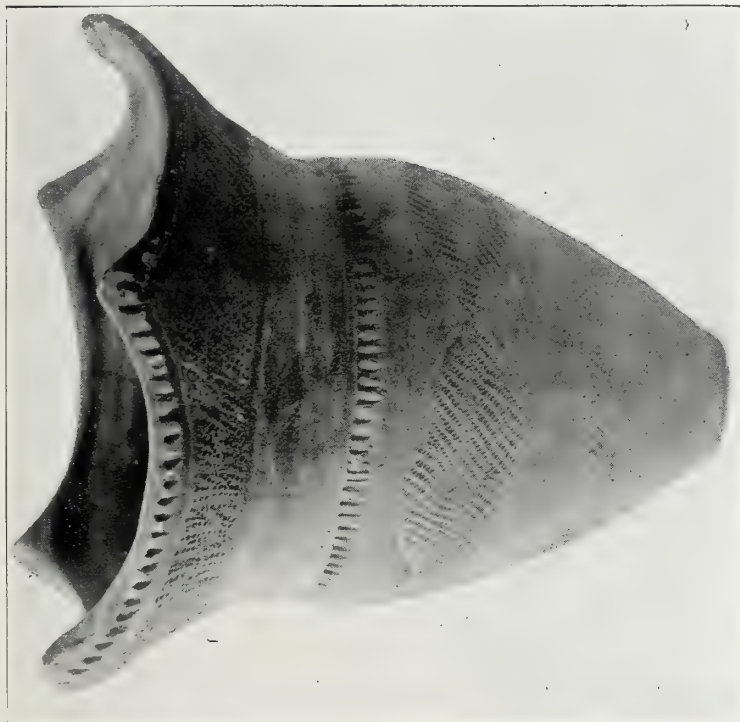
Cooking Pot.
(*Tokyo Imperial Museum.*)

Fig. 77.



(Takashima Collection.)

Fig. 76.



(Takashima Collection.)

Pots or Jars.

Fig. 78.



Fig. 79.

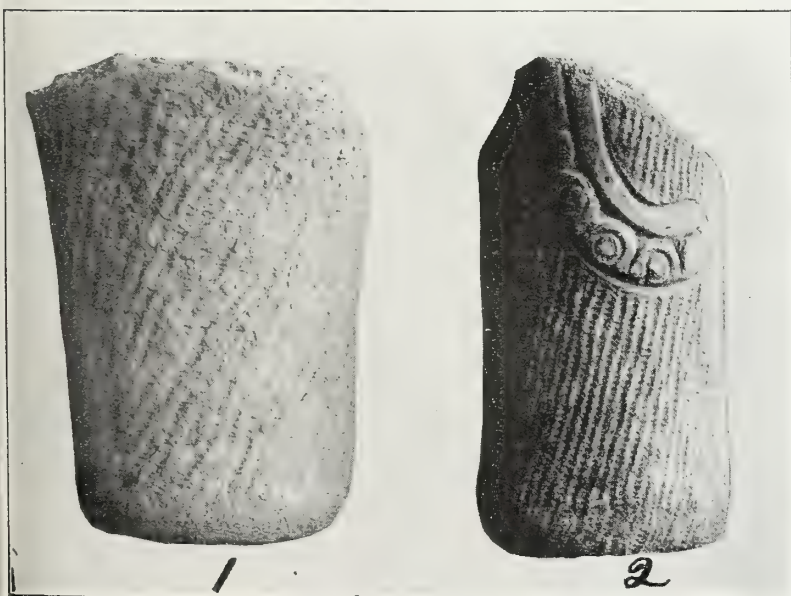


(Takashima Collection).

Pans or Bowls.



Fig. 81.

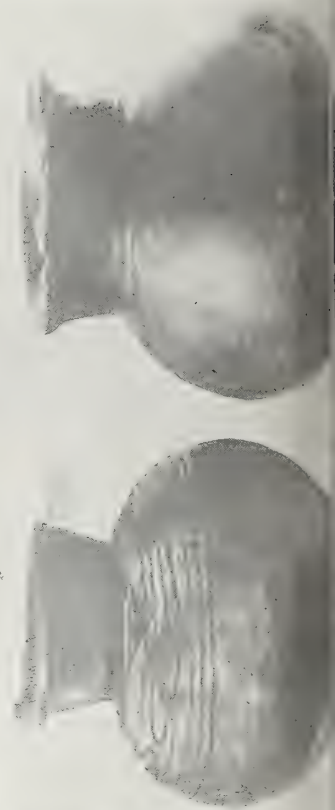


Jars.

Fig. 82.



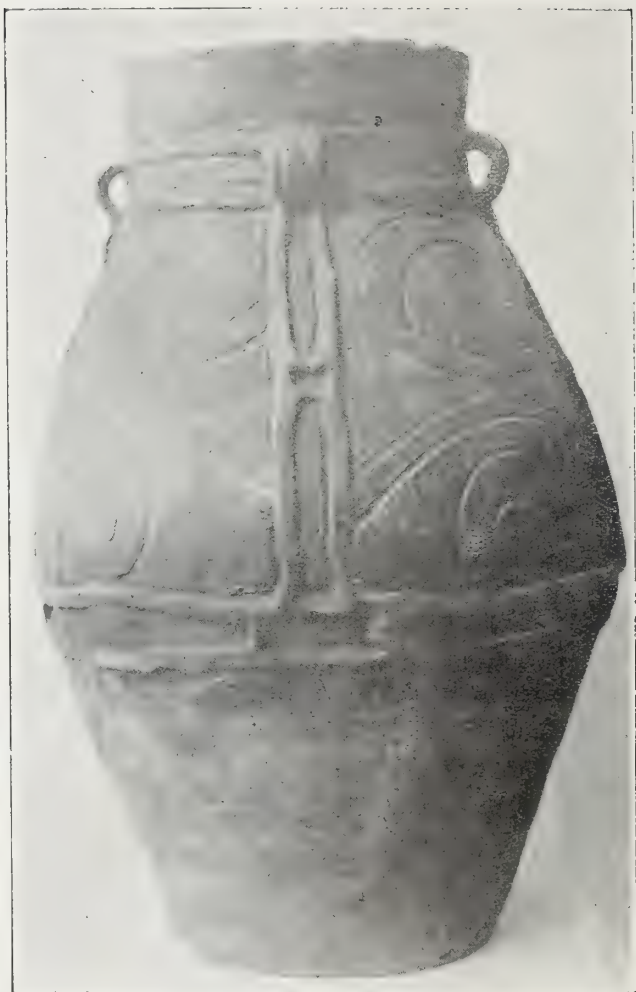
Fig. 83.





Jars of less archaic finish, but exhibiting textile Decoration.

Fig. 85.



Jar.
(*Tokyo Imperial Museum.*)

Fig. 87.

*(Tukashima Collection).*

Fig. 86.

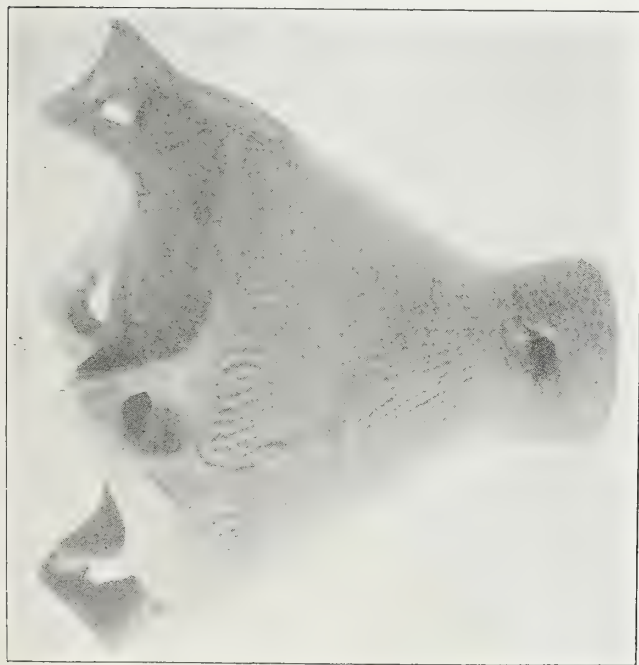
*(Tukashima Collection.)*

Fig. 88.



Fig. 89.



(Sato Collection).
Jars with Ainu Patterns.

Fig. 90.

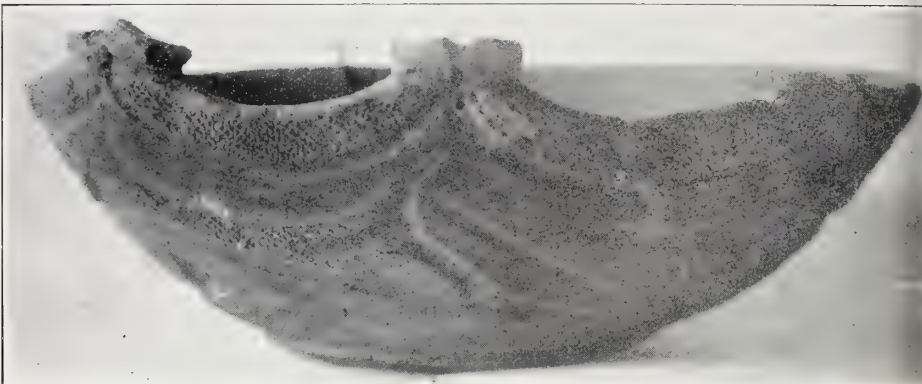


Fig. 91.



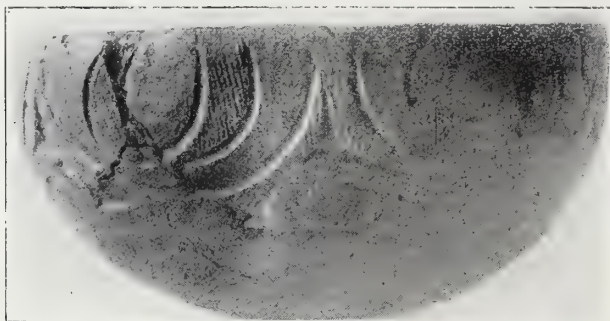
(Half Size.)

Fig. 92.



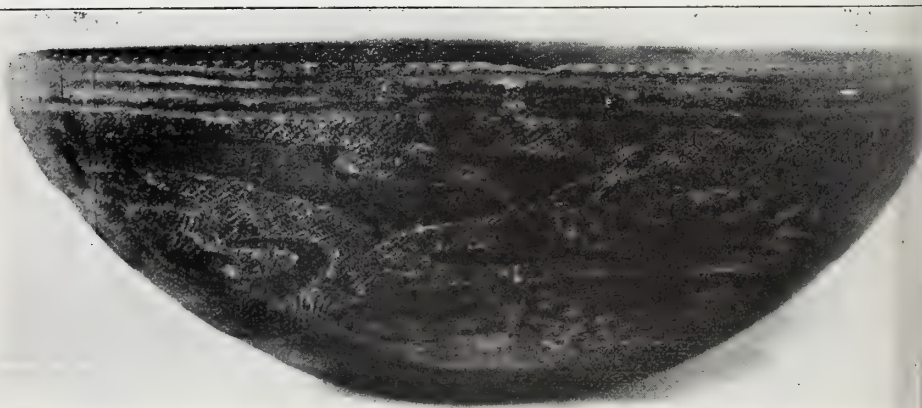
(Takashima Collection.)

Fig. 93.



(Takashima Collection.)

Fig. 94.



(Takashima Collection.)

Decorated Bowls.

Fig. 95.



Fig. 96.



(Half Size.)

Bowl and Cups.

Fig. 97.



(*Takashima Collection*).

Fig. 99.

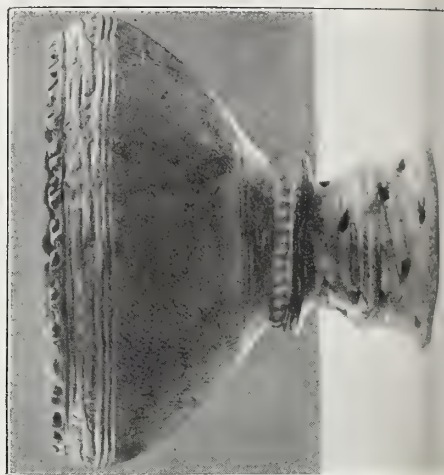


Fig. 98.



Fig. 100.



(Takashima Collection.)

Fig. 100 A.



(Takashima Collection.)

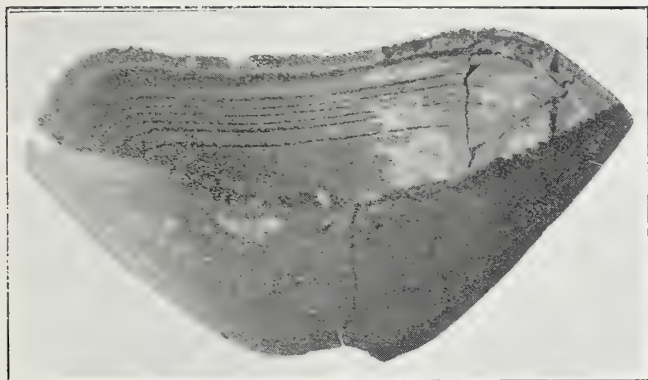
Cups.

Fig. 101.



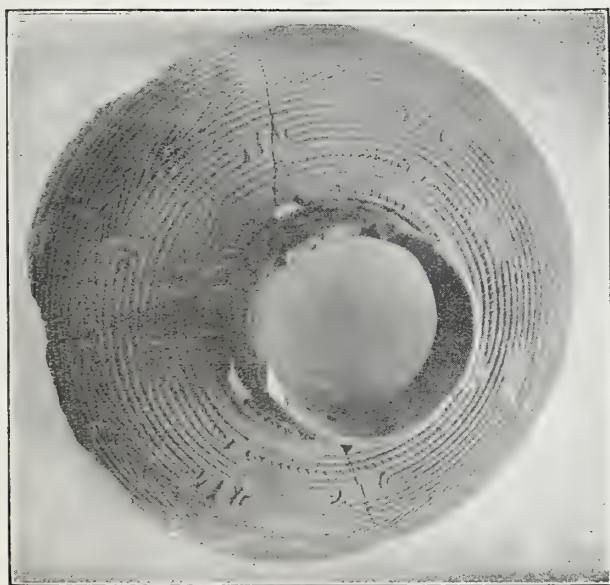
Takushima Collection,
Pot or Jar and Cups.

Fig. 102.



(Takashima Collection)

Fig. 103.



(Takashima Collection).

Decorated Bowls.

Fig. 104.



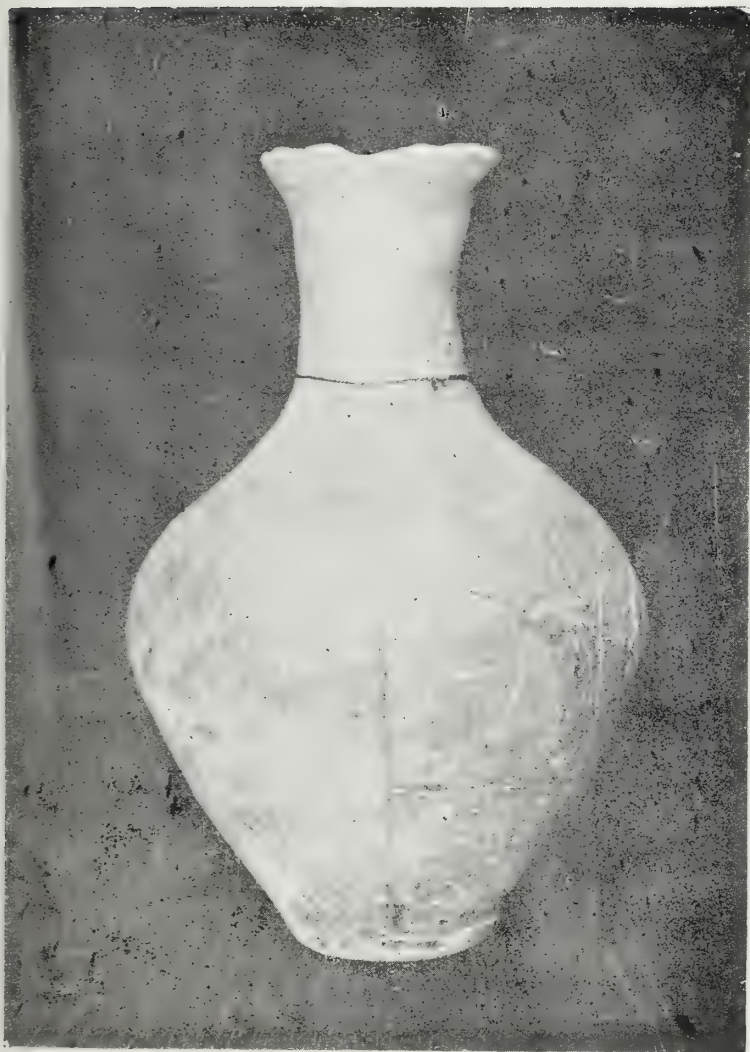
Fig. 105.



Fig. 106.



Fig. 107.



Bottle.

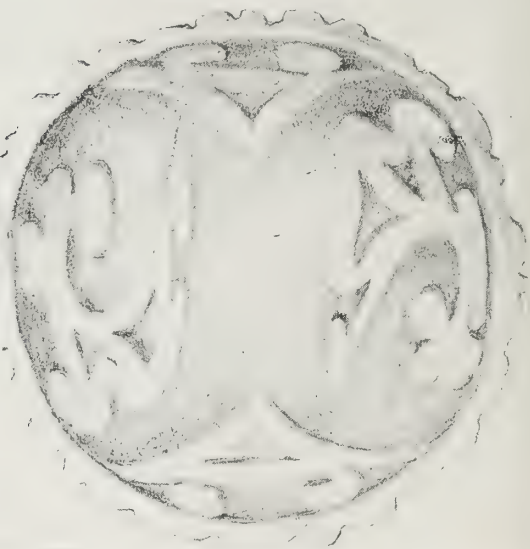
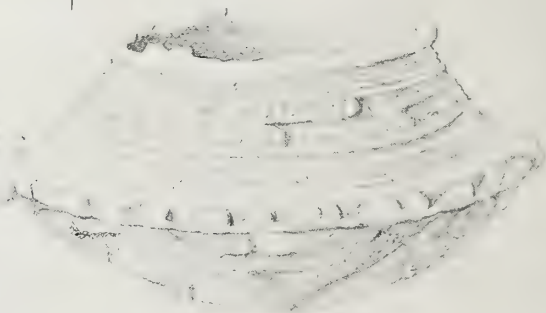
(Imperial University Collection.)

Fig. 108.



$\frac{1}{2}$ Linear.

Fig. 109.



$\frac{1}{2}$ Linear.

Bottles and Drinking Pot.

Fig. 110.

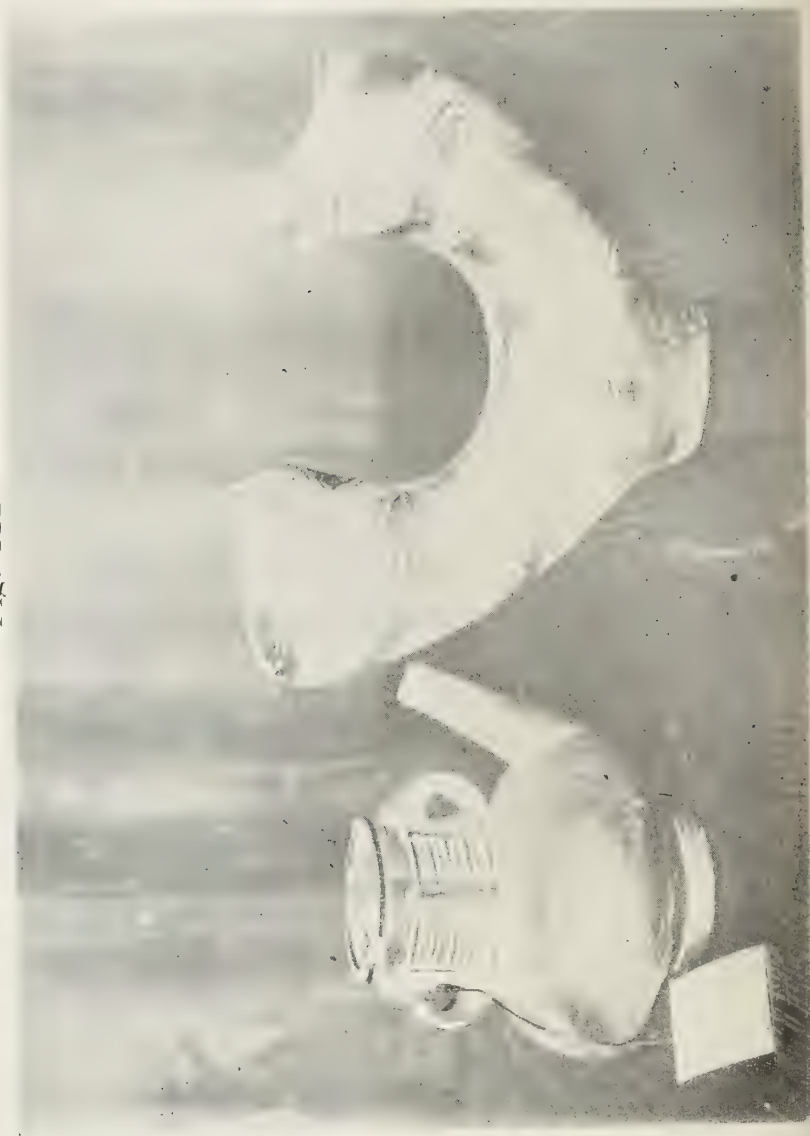


Fig. 111.



(Takashima Collection).
Drinking, or Nipple Pots.

Fig. 112.



The occurrence of loops on this pottery attracted much attention some years ago, as it was supposed to point to a difference in culture between the primitive inhabitants of the mainland and those of Yezo and the Kuriles. The Ainu of Yezo and the Kuriles were not supposed to be conversant with pottery till R. Torii in 1899 found that the Kurile Ainu not only used but had recently made pottery of a coarse description. An old person described the process of manufacture.* Fragments of coarse pans were discovered having handles inside for suspension over the fire. Inside perforated lugs afforded better protection to the suspending cord or thong than those outside the pan. R. Mamiya had illustrated a clay pan with handles inside in the "Kita Yezo Zusesetsu" (Illustrated Talks of North Yezo).† This is obviously copied from an iron model. S. Suzuki had also shown a clay pan of rough make with inside handles from Saghalin, in the "Karafto Nikki" (Diary in Saghalin).‡ The few pans and fragments of such, found in Yezo at Sapporo, Ezashi, etc., are also of crude manufacture and much resemble those of the Kuriles. The latter are of black paste which I suppose to be due to carbonisation of the grass which was said to have been mixed with the clay, probably to enable it to retain the shape during drying. None of the fragments which I have seen exhibit any decoration. I cannot but think that these pans are the last effort of a decadent art, a dying flicker from the lamp of a former culture which has been repressed by centuries of unsettled existence. It is well known that the

* "Chishima Ainu," 1903. † A.D. 1855. ‡ A.D. 1857.

ceramic is the most sensitive of the primitive arts. It needs a sedentary culture for its proper development. Progress in pottery-making is incompatible with a roving and precarious life.

The Yezo or Ainu have long been accustomed to use iron pots from Japan or Siberia, some of which had handles inside. Such pots have been found in the pits of the Hokkaido (Yezo) with wares of wood and implements of stone.* Pots of cherry or birch bark, suspended by cord or thong, attached to cross pieces fixed inside the ends of the vessels, served the purpose for which iron pots with inside lugs were made. It is reasonable to suppose that the clay pan with handles inside was copied from the useful iron or bark model but it is quite possible that the iron pan of this type was descended from one of clay.† According to N. Tanaka, within the last 20 years earthenware pans with handles inside were in use in Musashi and the island of Hachijo.‡ It is almost equally significant whether this pan was copied from an iron model or the reverse.

I have classed the specimens in Figs. 73 to 77 as cooking pots, but some of them might have been jars or vases intended to rest in a cavity of the floor, or in a wooden stand. Examples of the pot are likewise seen in Figs. 86 and 101. Figs. 78 and 79 may be regarded as pans, but the conical bottom does not necessarily indicate the function. This form was often adopted in the case of bowls. The material of

* Cited by Prof. Tsuboi T. J. Z. No. 16. (June 1887).

† It is obvious that inside handles were more useful in the case of the pan than the long pot, where the rim is not necessarily so near the fire.

‡ T. J. Z. No. 16.

Fig. 78 closely resembles that of the Kurile pans; it has the same coarse and black paste and a decoration of mica particles that shine brightly, visible in the half tone print.

2. JAR AND VASE.

Jars are of endless variety and vary greatly in size. The distinction between these and vases is a matter of decoration as well as of form; we may regard as vases those with a pedestal, or when utility is overbalanced or sacrificed to ornament. Where the orifice is less than one third of the diameter of the vessel we may, *ceteris paribus*, suppose the specimen to be a bottle, and where much greater, a bowl or dish.

The archaic form, Fig. 80, is covered with a coarse textile pattern which has been impressed by applying some fabric several times to the wet clay. In Fig. 81, the matting seems to have been wrapped around each vessel. In No. 2 the pattern serves as a background for a more advanced decoration. Fig. 82 is a vase with pictorial representation, a very rare occurrence, if not altogether unique. I discovered it at the Negishi site. Figs 83 and 84 illustrate a type common in the north of Japan. Fig. 85 is a jar of large size, 54.5 c.m. ($21\frac{1}{4}$ in.) from the north of Japan. Figs. 88 and 89 are from the north and of higher finish; the paste is firm, the form more advanced and the ornamental motive is found in Ainu art. (See also Fig. 103). The perforation of the pedestals in Figs. 86 and 87 was perhaps intended for ornament but possibly to suspend them when not in use, the restricted bottom rendering them

liable to injury in a domicile which was of modest, not to say, restricted, dimensions. Pedestals perforated with round holes, apparently to relieve their heavy appearance, are found on the neolithic, the Intermediate and occasionally on the Yamato pottery. They are not uncommon in ancient pottery from India and I have seen the same in the Schlieman collection from Troy.

The jar, Fig. 90, represents a sort found especially in Yezo. In the quality of its paste and the imperfect workmanship, it is almost on a par with the pans formerly mentioned as having handles inside. They appear to be relics of a degenerate art.

3. BOWL AND DISH.

Here again transitional forms are to be seen, on the one hand approaching the vase and on the other the cup. The plain undecorated specimen with round bottom, Fig. 91, is quite common. Samples with incised and moulded decoration, Figs. 92, 93 and 94, are rather scarcer. In Fig. 95 the textile pattern fills the body of the design, instead of merely forming a background. The forms seen in Figs. 96, 99 and 103 seem to have been favoured in the north but the restricted base and even the pedestal are seen in the Kwanto (Fig. 97). Fig. 99 shows a mounted bowl of elegant proportions; another of similar form is seen in Fig. 117. The shallow bowl with heavy pedestal, seen in Fig. 98, is quite modern, probably not more than a century old. The same archaic pattern is made at the present day and is being used in the Shinto religious service at Nara, from which

place I obtained this specimen. It is hand-made without the aid of the wheel, an interesting survival. A hole is bored through the bottom of the pedestal, indicating its use as a stand for a chalice rather than as a vessel itself. This type is found in the neolithic pottery (Fig. 97) of Japan, in the intermediate pottery and in that from ancient Greece, India and elsewhere. It persisted in the Yamato pottery. Among many interesting bowl-shaped vessels the chaste embellishment (Ainu design) of the under surface in the case of the mounted bowl, Fig. 103, and the unusual shape (quadrangular) of the rim of Fig. 102, are worthy of attention. Interesting forms are also seen in Fig. 105.

Bowls and vases are to be distinguished from cups chiefly by their size, and from dishes and plates by their depth.

4. CUP.

Figs. 100 and 100 A show two cups of uncommon design. Not only cups but bowls were doubtless made of wood (as used by the present Ainu) and sections of bamboo may have been employed for either.

I may mention here that cups and other vessels of diminutive size have been excavated from the primitive sites, Fig. 106. These might be considered as special vessels to set before the ancestral deities. The vessels for offerings to the household shrine in Japan are usually of small size, and some of them are of primitive form. One, for instance, Fig. 98, is merely a disc of clay pinched in at opposite sides. The dwarf-like specimens just mentioned might have been toys. I understand that in Formosa such objects are made

for the amusement of children. It is an open question whether the figures of animals which, though rare, have been found in the sites, were intended as play-things. Religion, at this time, must have embraced animal deities. If we regard the human figures in the light of ancestral divinities, we may extend a religious connection to the animal forms and to the diminutive cups and other like objects.

5. BOTTLE.

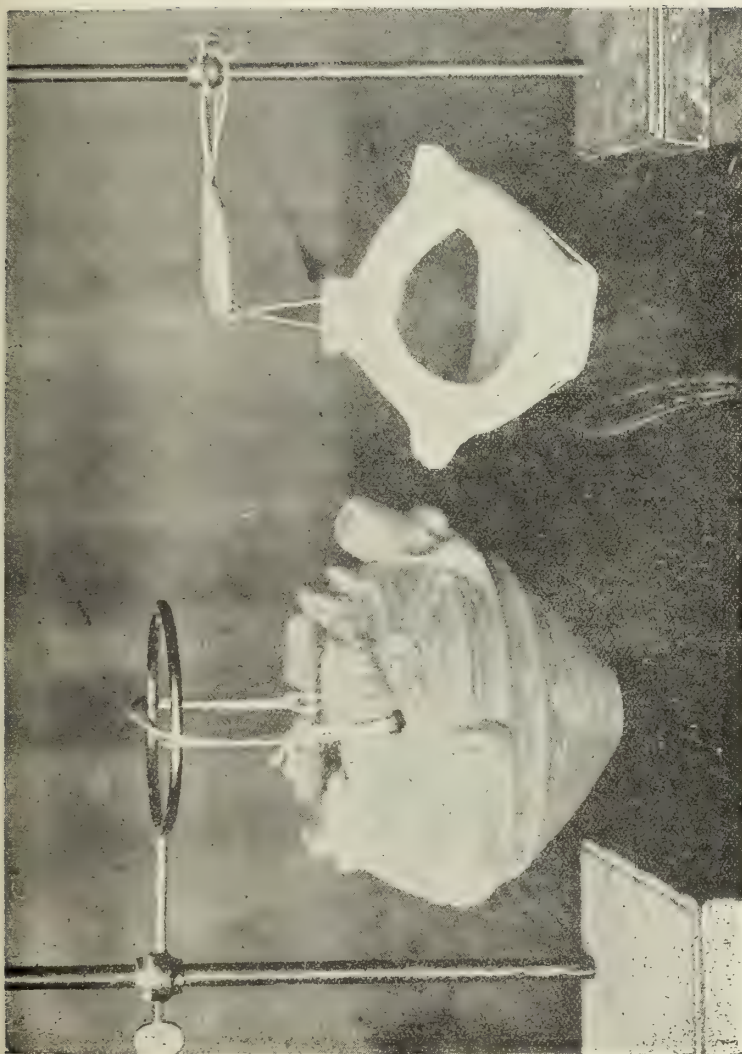
Bottles occur in the Kwanto but are especially common in the north. Fig. 107 is a fine specimen from the Imperial University collection. Various forms of smaller size are seen in Fig. 108. Possibly some of the larger jars were used for storing water, but I have not seen any that compare with the huge jars sometimes seen in other lands, or even those of the Yamato. They might easily have been destroyed; from their size and soft consistence they would be less resistant than smaller objects. It is not unlikely that some of the holes in the red clay of the primitive sites were utilised for the storage of water.

6. NIPPLE POT.

The drinking pot is of varied form, Figs. 109 to 115. That on the right of Fig. 110 recalls some vessels from Troy. I have named this type of vessel "nipple pot,"* though some are phallic. The Yamato used a drinking pot, the spout of which was inserted into a hole in the side of the vessel and was

* The *chirange ashikoro* or millet beer of the Ainu has a milky appearance. The Ainu word for Japanese liquor is *tonoto* perhaps "nipple mouthful." Similar analogies occur elsewhere.

Fig. 113.

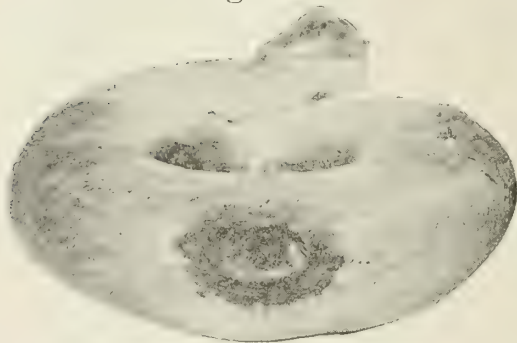


University Collection

Fig. 114.



Fig. 115.



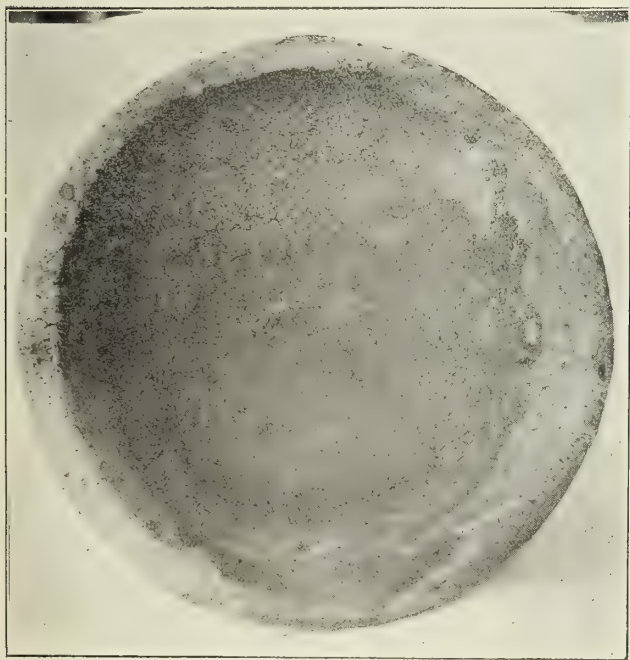
probably of wood or bamboo. I have also seen a specimen in which the spout formed part of the vessel, as in the primitive ones above mentioned. Fig. 114

shows loops for a handle, probably of rattan. Fig. 115 is a large drinking vessel of circular (ophidian?) shape. The spout is broken off; at one time it had been repaired with black cement resembling that on the fishing and hunting implements.

7. LAMP.

Little is known about the lamps in use during the primitive culture. Any shallow vessel might have been utilised with a wick made from pith, as in the night lamp of Japan and rural Europe at the present day. Fig. 116 is the bottom of a vessel which has been care-

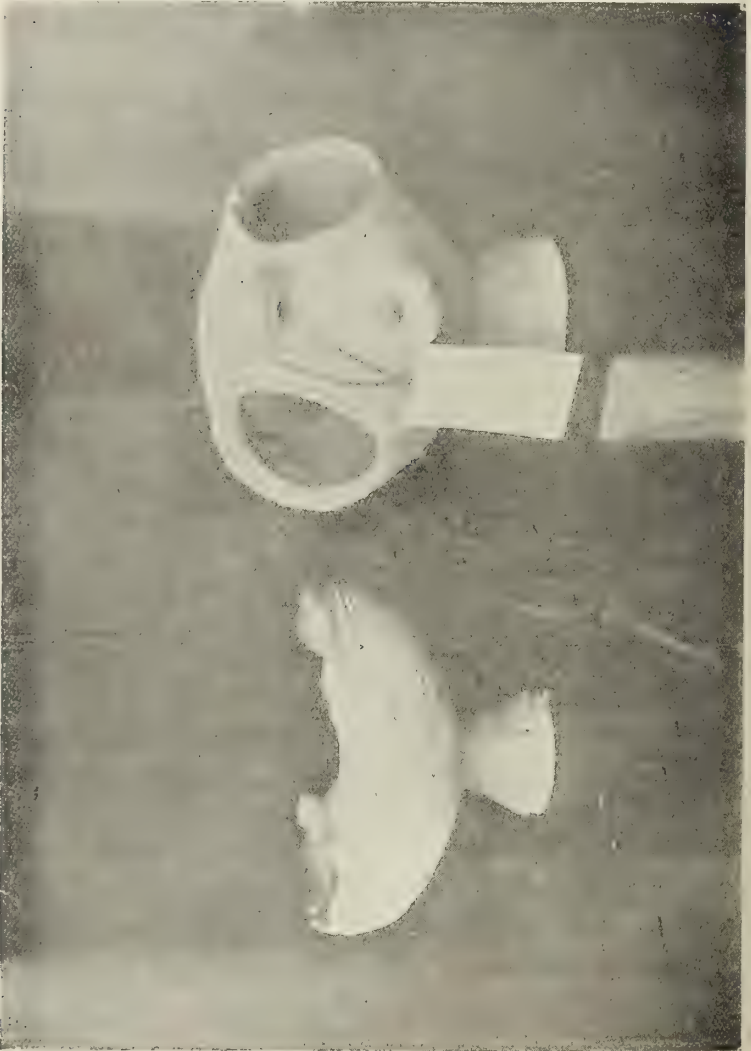
Fig. 116.



fully smoothed and inverted so that the hollow stand served as a utensil. From the appearance of the surface at the lower part of the vessel, which seems to have been corroded by frequent burning, I am almost certain that this has served as a lamp. Some of the objects which are supposed to be braziers could have

been used for the rushlight, which answered all the needs of the primitive inhabitants. It may be presumed that No. 2, Fig. 113, was designed to supply light rather than heat.

Fig. 117.



(University Collection.)

8. BRAZIER.

Some of the charcoal found in the sites is doubtless the residue of wood charred in the fire, but one meets with pieces which, from their size, seem to have been purposely prepared. It is likely that braziers were

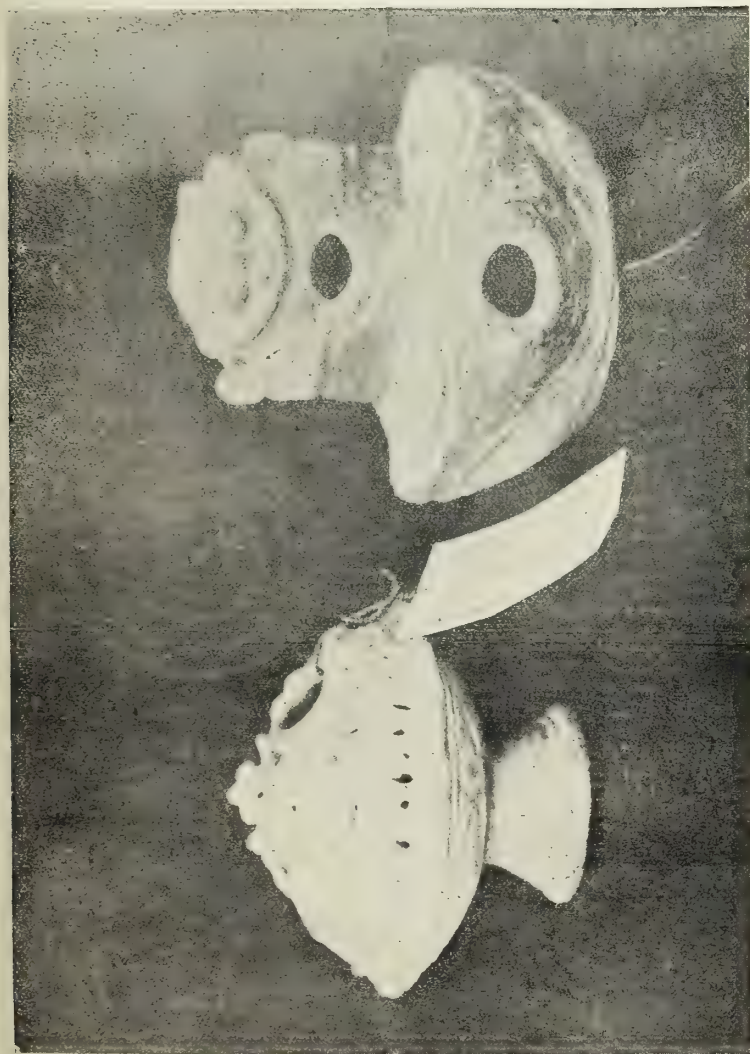


fig. 110.

(University Collection.)

used, but whether the utensil shown in Fig. 117 was a brazier or lamp it is difficult to say.

9. INCENSE BURNER.

It is a surmise, unsupported by actual knowledge, that objects like No. 1, Fig. 118, or Fig. 119, are

Fig. 119.

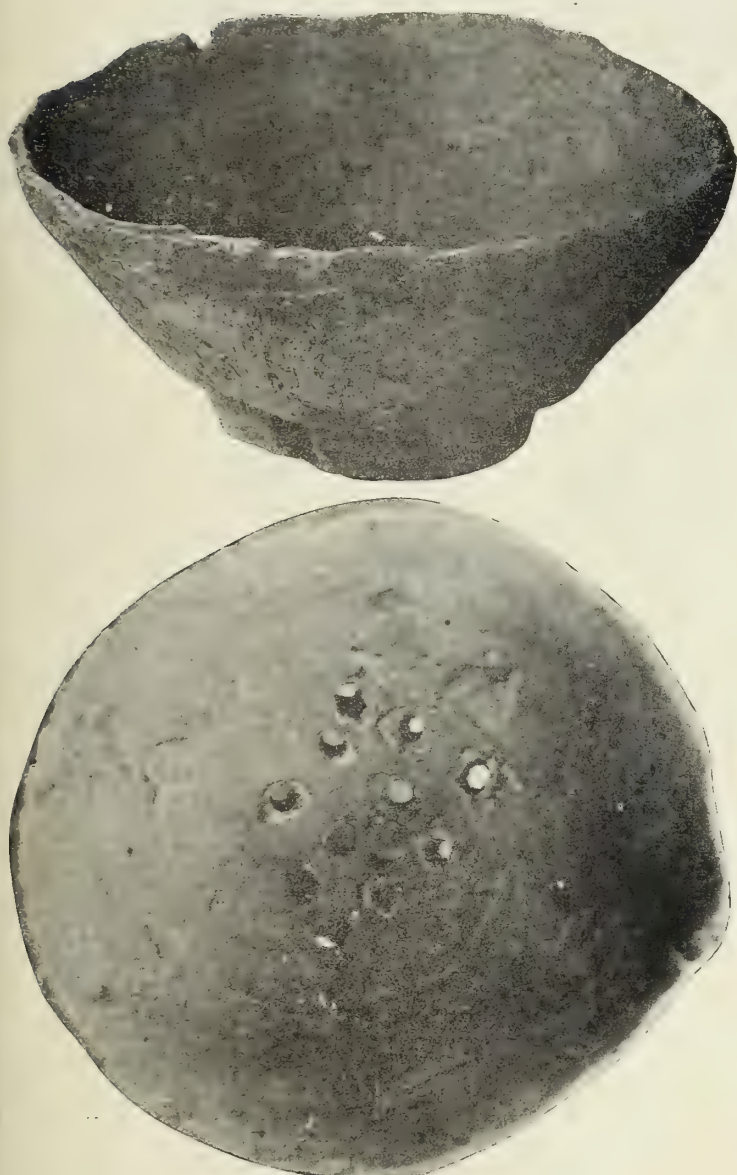


incense burners. Analagous, though not quite similar, things from the Yamato tombs have been set down as incense burners and this, together with the difficulty of imagining what else they could be, inclines one to attribute this function to them.

10. STRAINER.

The very interesting relic, Fig. 120, recently acquired by the Imperial Museum, is shown by the courtesy of its officials. The lower part has evidently been made to fit the mouth of a vessel placed

Fig. 120.



STRAINER.

Tokyo Imperial Museum.

beneath it, while the holes were apparently designed for straining food. A specimen of a similar kind has been reported and illustrated by K. Wakabayashi.* This was not so shaped as to fit into another vessel but the expanding upper part might have served this object. I have several potsherds with holes through the sides but cannot say whether they were intended for a similar purpose. Holes were sometimes pierced around the rims of vessels for decoration or suspension.

11. STAMP.

One or two objects of clay, apparently adapted for stamping cloth or other material, have been reported. Such a one is Fig. 121.†

Fig. 121.



12. SPINDLE OR DRILL WEIGHT.

No. 1 of Fig. 122 appears to me to have been the weight of a small drill or spindle. I have found one of coarse clay which seemed to have been used for giving momentum to the drill or spindle, and understand that they are not more rare than those made of stone.

* T. J. Z. No. 78.

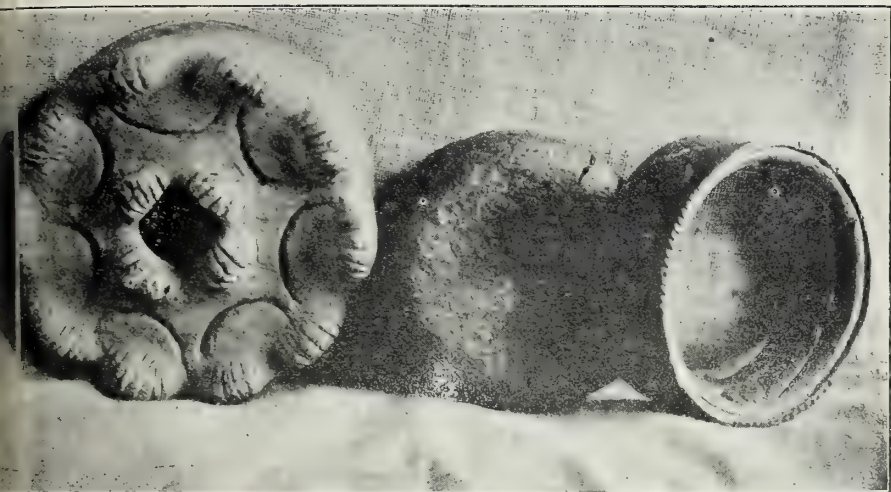
† T. J. Z. No. 166.

Fig. 122.

1

2

3



DISCS, AND RING OF BAKED CLAY.
(*Takashima Collection.*)
(Nearly full size.)

Fig. 123.



(*Takashima Collection.*)
(Three-quarter size.)

Fig. 123 B.



(Takashima Collection.)
(Three-quarter size.)

Fig. 124.



(Imperial University Collection.)
(About Half Size.)

Fig. 125.



(*Takashima Collection.*)
(**Actual size.**)

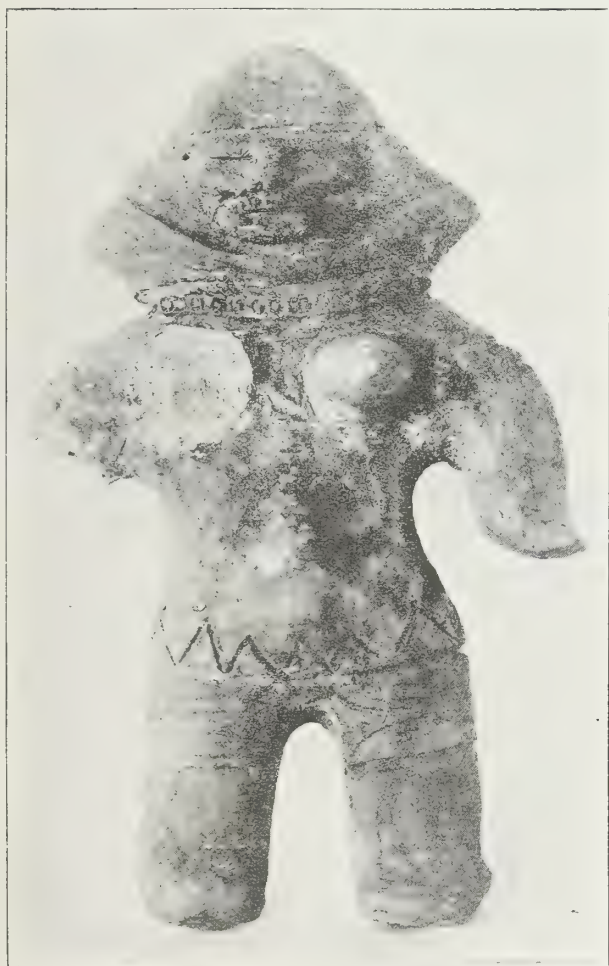
Fig. 125 B.



(*Takashima Collection.*)

(**Actual size.**)

Fig. 126.



(Takashima Collection.)
(Actual size.)

Fig. 127.



(S. Sato Collection.)
(Half Size.)

Fig. 128.



(Imperial University Collection.)

(Reduced.)

Fig. 129.



(Kato Collection.)
(Nearly Half Size.)

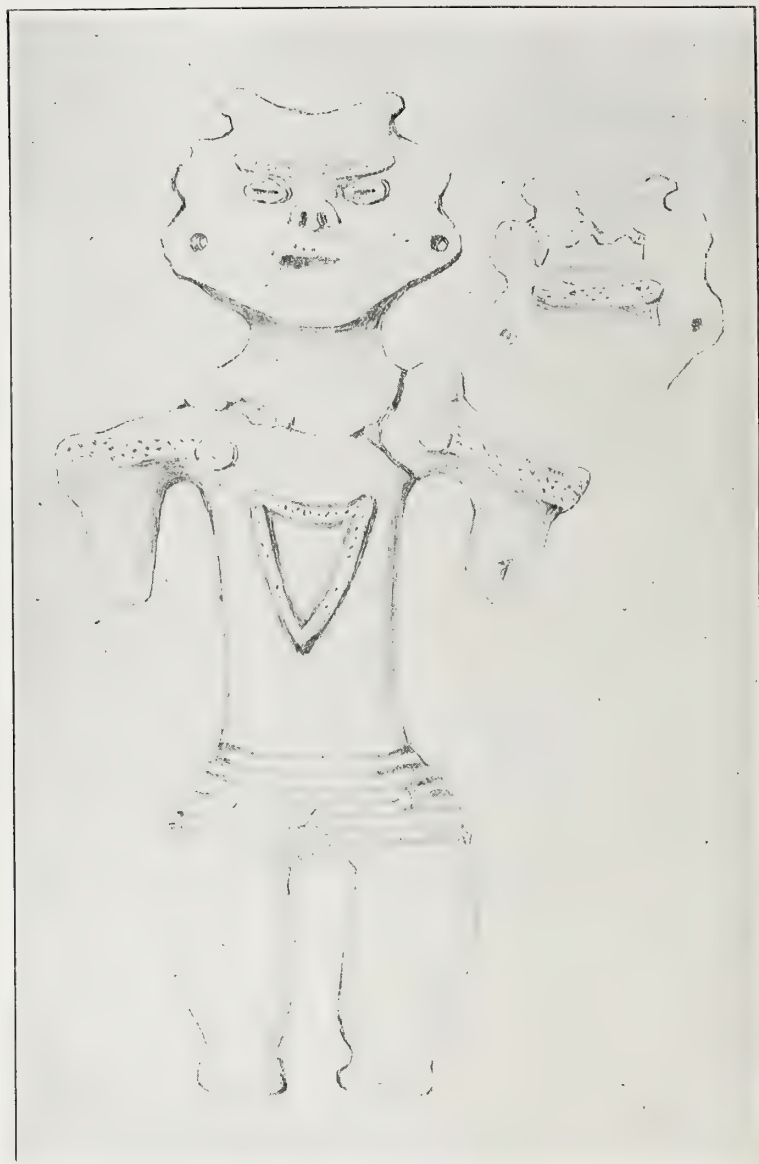
Fig. 130.



(Collection of The Tokyo Geological Society.)

(About two-thirds size.)

Fig. 131.



(Kohitsu Collection.)
(Nearly Half Size.)

Fig. 132.



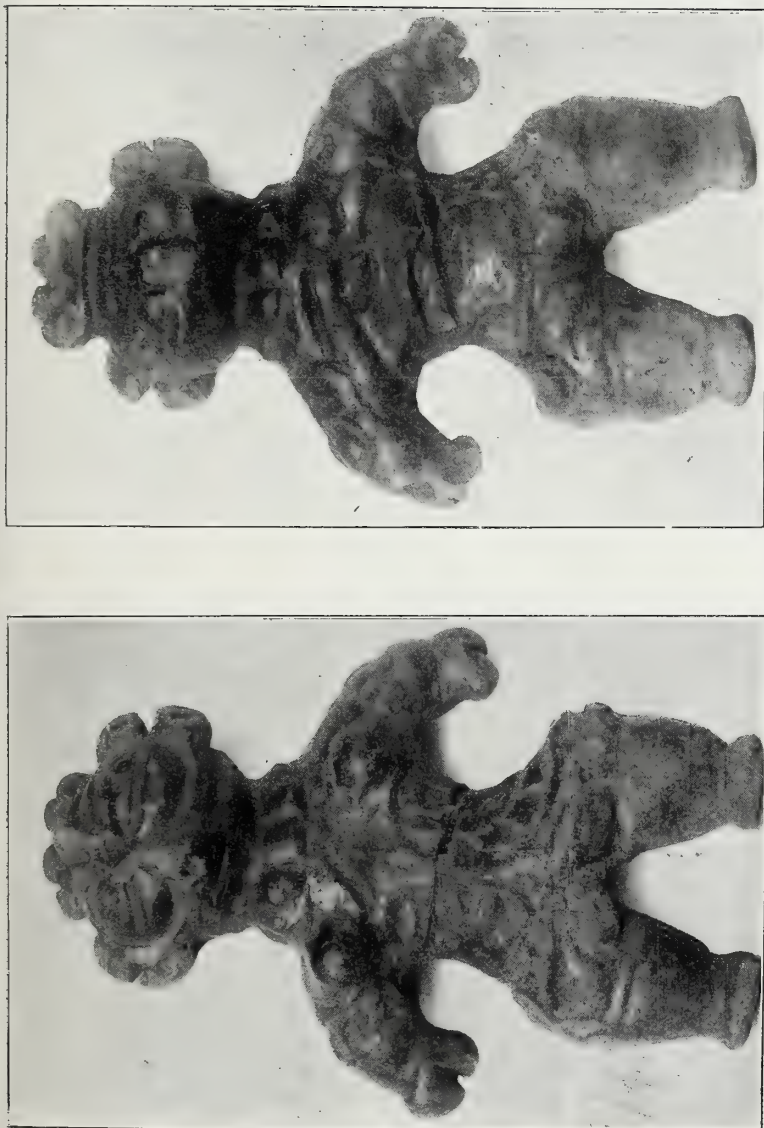
U.S. Soto Collection
 (Two-fifths Size.)

Fig. 133.



(Tokyo Imperial Museum.)

Fig. 134.



(*Iwakashima Collection.*)
(**Actual Size.**)

Fig. 135.



(Takashima Collection.)

(From Formosa.)

(Actual Size.)

Fig. 136.



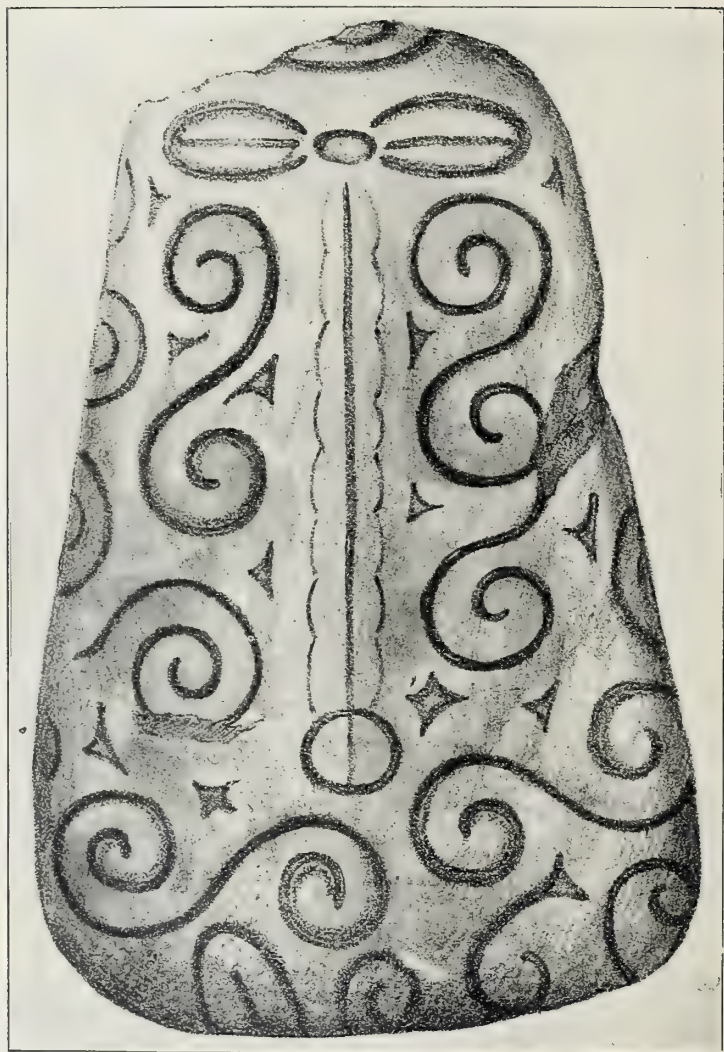
(Imperial University Collection.)

Fig. 137.



CLAY PLAQUE.
(Mizutani Collection.)

Fig. 138.



STONE PLAQUE. (Anthropomorphic).

From the "Senshi Kōko Zufu," (Illustrations of Prehistoric Archaeology),
by N. Cno.

13. ORNAMENTS.

Beads of clay, rarely round Nos. 9 and 10, Fig. 161, usually oval or spindle-shaped, have been recovered. Two of the latter are given in Fig. 160, No. 1. Though perhaps used as line sinkers for fishing, it is not improper to regard them as ornaments.

The article seen in Fig. 122, No. 3, was probably an earring. This matter will presently be discussed along with the question as to the existence of ear plugs, of which No. 2 may possibly be an example. No. 15, Fig. 161 might have been a stud for the ear, or possibly lip.

14. IMAGES.

Though the earthenware images from the primitive sites impart various hints concerning the people whom they presumably were intended to portray, the art of reproduction in clay had not reached a stage in which the attainment of a faithful likeness tends to counteract the tendency to conventional garnishing and grotesque departure from the original model. To our vision, the majority of authenticated specimens are conventionalised beyond the possibility of identification, but we must not forget that the process of caricature, even when carried to the extreme degree presented by these figures, may have served the purpose of identification better than an attempt to produce an all-round likeness. Just as a modern caricature or a nickname, rivets the attention to some individual feature, it is not improbable that some of these images

were regarded in their day as highly satisfactory likenesses. On the other hand many have become conventionalised into mere anthropomorphs in which one can barely distinguish the traces of a human visage. Even here, however, some special mark occasionally betrays an intention to preserve a distinguishing feature.

If we regard these images, in the main, as personal portraits it becomes a question as to what motive they owe their origin. If we may judge by the prominence of the mammæ, the female figures greatly outnumber the male. We might thus suppose that the primitive people used these images as a substitute for living burial in that state of society when wives and female slaves were still called upon to attend the departed. The occurrence of these images, mainly in the upper deposits, might suggest that this custom was copied from the Yamato. There are, however, reasons which militate against this view; the fact that they have only been found in residential sites is strongly opposed to any association with burial, although knowledge of the latter is very limited. The available information disposes one to assert that these images were effigies of the dead, further, that they were intended to receive the soul or personality of the deceased and were not only revered as mementoes but were worshipped for their capacity to affect the welfare of the living. What seems to be absurd grotesquery had a serious intent, either for the purpose of identification, or of conveying a sense of the exalted station of the departed and perhaps the special qualifications of the ancestor-god. The nudity of some

images does not invalidate this opinion; it is probable enough that such figures were clothed in the garments of the period so long as they were held in reverence. Even the nude figures are provided with a loin cloth, though this does not invariably conceal the sex. Such a cloth is still often worn under the garments. One may feel some surprise that the feminine sex was apparently favoured but this is not inconsistent with the stage of culture, nor is it quite certain that the prominent mammæ invariably indicate females.

In the following chapter I shall briefly notice the clothing and personal ornamentation of these images, but may call attention here to one or two traits which cannot well be included under these headings. On some of the figures the eyes have a rimmed appearance and are disproportionately large, Figs. 124, 125, 127 (No. 1), 129, 134 and 139. Prof. Tsuboi believes that these represent eyeguards or snow goggles, such as are used by the Eskimo. He sees in this resemblance a significant piece of evidence connecting the primitive people of Japan with the Asiatic Eskimo. It is difficult, however, to comprehend why a people in the Kwanto, for instance, who had been making pottery *in situ* for centuries, should continue to use a device which is only employed by the northern Siberian tribes and Eskimo and which would be a hindrance rather than otherwise in this country. While the ingenious interpretation of Prof. Tsuboi might hold good for an origin from masks which had penetrated into Japan from Eastern Asia or the Aleutian Islands, I am satisfied that this appearance is simply a conventional garnishing of the human eye, recognised as the visible token of the

mind by the savage as well as by the poet. Where the departure from the natural form is so evident as in the preceding specimens, the eye could not easily escape alteration. In Figs. 124, 127 (No. 1), 129 and 139, the

Fig. 139.



appearance is somewhat suggestive of spectacles, but when we bear in mind that the slit-like eye is found on numerous specimens to which the goggle theory does not apply, when we reflect that the eye is usually the first feature to attain prominence and the most persistent in the anthropomorph, the conviction arises that the

ancestral deities were provided, not with eye-guards but with spacious "windows of the soul," like the eyes depicted on the junks of China and the boats of Polynesia. The explanation given by a Chinese boatman may bear repetition here as being somewhat fundamental: "No got eye no can see; no can see no can savey; no can savey no can do!" Various tribes of eastern Asia, including the Ainu, eat the eye of the bear in order, doubtless, to obtain clear vision, just as the heart of this and other animals is supposed to confer strength. We may be sure that special virtue was

Fig. 140.



ascribed to the human eye and it is highly probable that the magnified eye was intended to aid the vision of the ancestral ghost.

Another point which is worthy of notice is the frequent presence of the umbilicus and the existence of a line running vertically upward from thence or from the uterus, Figs. 126, 127 (No. 3), 128, 132, (No. 1), 138 and 140. One would naturally suppose this to represent the open seam of a garment did it not sometimes occur on specimens which appear to be naked. Moreover, this line usually terminates somewhat below the neck, which suggests the representation of an occult idea, perhaps connected with vitality. The Ainu believe that the seat of vitality is in the spinal column and it is conceivable that some such notion guided the primitive artist in the choice of this line. Considering the prevalence of the phallic motive on the *seki-bo*, the comparative absence of this sexual concept on these figures is noteworthy.

As a rule even the images not recognisable as female are devoid of hair on the face but there are a few

Fig. 141.



Fig. 142.



exceptions as in Figs. 141* and 142.† Though the rare occurrence of the beard is somewhat adverse to the view that the Ainu constituted the bulk of the primitive population of Japan, it should not be forgotten that many of the images are highly conventionalised; that this appendage is present in Mongoloid races and is sometimes, by a few strokes, represented on the masks of the Eskimo. It is possible, therefore, that the facial outline seen in Fig. 125 represents a beard. I have noticed the vertical lines, only on these without, or with insignificant, mammæ. According to Batchelor, the Ainu men before a funeral "generally have their beards trimmed, hair cut and their necks and foreheads shaved,"‡ but it would be risky to infer an association between this custom and the absence of the beard in the clay images. The Ainu Anthropomorph (Fig. 165, Chapter 7,) has no beard.

Some of these images are hollow, especially in the north, and a few are open at the vertex, (Fig. 139,) possibly with the design of sustaining the body of the god by appropriate nourishment. In this specimen the eyes have practically usurped the face.

The face is often conventionalised to a degree which can scarcely be recognised as human, Fig. 130. In a series of beautiful plates published by the Imperial University this departure from the normal type is demonstrated, three discs for eyes and mouth representing the last stage. A similar condition is seen in Fig. 133, where No. 4 fairly represents this

* T. J. Z. No. 192. Taken from the "Shimpen Musashi Fudoki" (Newly Published ancient Records of Musashi) 1816.

† T. J. Z. No. 230.

‡ "The Ainu and their Folk Lore" p. 565.

process of degeneration. Animal figures, such as the monkey and bear, have been found in the northern sites.

15. PLAQUES.

Earthenware plaques known as *Doban* are usually of oval or oblong shape; round ones are very rare and the former are quite uncommon. I have not yet encountered any, but five were found in the Ōmori site and several have been illustrated in the Journal of the Tokyo Anthropological Society. Prof. Morse suggested that they might have been used in some game like quoits, or as insignia of authority or as amulets.* Either of these conjectures would account for the worn appearance and broken condition of many of these objects. Possibly some of them were used not only for occult reasons but also to give physical protection to the body. The Ainu have a legend to the effect that their forefathers used "stone armour." The Chukchi and Koriaks, who, with the Ainu, have been classed as Palasiatics, use plates of bone, sewn into the garment, as armour. Occasionally they are made of stone.

The majority of the plaques are distinctly anthropomorphic, Fig. 137. Fig. 138, which I have copied from the "Senshi Kōko Zufu" (Illustrations of Prehistoric Archaeology) by N. Ono, is an excellent example.† One may include here the stone objects, Fig. 143, one of which, taken from my excavations, seems to represent a clothed figure, possibly the back of an image. Some of the clay plaques are perforated

* "Shellmounds of Ōmori," Memoirs of the Science Department, Imperial University, By Prof. E. S. Morse.

† This is carved in soft stone, probably a boulder clay.

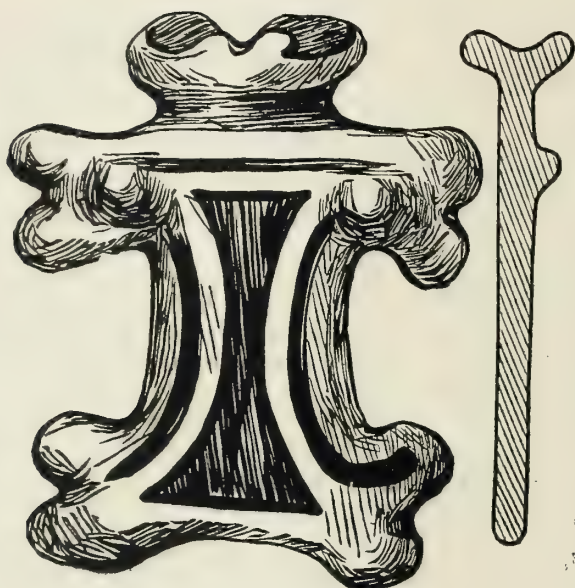
Fig. 143.



as if to attach them to something, perhaps to the person. I believe these plaques were either objects of worship or amulets. It will have been observed that the arms and especially the legs of the clay images are rather stunted. Specimens exist in which the legs and arms are little more than knobs, Fig. 144,* while the head has also been contracted, a continuation of the same conventional degeneration. These represent a stage intermediate between the clay image and clay plaque (*Dogu* and *Doban*). It may be taken for granted that the anthropomorphic plaques are derived

* T.J.Z. No. 185.

Fig. 144.



from the clay images, mainly by the elimination of useless appendages, which probably did not diminish the sanctity of the god. On the contrary it may be supposed that imagination amply com-

pensated for physical deficits, and that the deity waxed in repute as it waned in definition. We seem to have here a concrete example of the universal process of deity-making by pruning, and grafting upon, a human personality.

The anthropomorphic motive cannot be recognised on all of these plaques. Occasionally they are hollow.

The round specimen, Fig. 124, might perhaps represent a mask; possibly also Fig. 136, but markings on both surfaces of the latter (probably intended for hair) seem to negative this. In this specimen the same marks are found on the face, which is apparently bearded. Fig. 124 on the other hand, shows the appearance which Prof. Tsuboi attributes to goggles, though the dots about the eyes, so common on the neolithic images, are taken by myself to represent eye-brows and eye-lashes.

CHAPTER VII.

DIET, DRESS ART AND SOCIAL RELATIONS.

The shell heaps, which are so prominent a feature of the neolithic sites, bear witness that this article of diet was much in vogue during the primitive culture. From the list given in Appendix B, the variety of shellfish brought under contribution will be seen. The bones of many kinds of fishes have also been discovered in the sites. When we consider the liability of fish bones to decay, we can readily believe that this form of nutriment was indulged in to a greater degree than is apparent. Indeed the presence of large numbers of sinkers gives evidence that the fishing industry was of no little importance. Of mammals, the remains of the boar and deer are by far the most frequent but the bones of the bear, monkey, fox, dog, badger, hare and squirrel have also been encountered. Walnuts have been reported by K. Uchiyama, K. Wakabayashi and S. Satō, and in my excavations a chestnut and some chopped root (the latter in a jar) have been found. No grain has yet been discovered in the unequivocally primitive sites. Certain marks on potsherds from Mitsusawa somewhat resemble the imprint of cereals, but I am not prepared to lay great stress on these. The existence of cereal worship appears to imply the ancient use of millet or other grain;

probabilities are in favour of some cultivation after, if not before, the Yamato invasion. The *Yama imo* (wild potato), the *Kuwai* (arrowroot), the *Warabi* (common bracken), various other roots, nuts, wild fruit, edible leaves, fungi and seaweed, probably contributed to the diet of the primitive people. It is almost certain that fermented liquor was known. There are few primitive people without some knowledge of the manufacture of intoxicating drink. Alcoholic fermentation is liable to occur spontaneously in most latitudes. It is interesting to note that the millet beer of the Ainu comes from a primitive cereal while the *sake* of the Japanese is made from rice.

We have seen that food was cooked over a fire in vessels specially constructed for the purpose, but it may sometimes have been prepared by baking in ovens of heated stones, or boiled in vessels of clay, wood or osiery by placing red hot stones amidst the water and other contents.

Traces of the use of fire are abundant in the primitive sites. Every shellheap contains not only ashes but charcoal. Some of the latter may have been specially prepared for the brazier or, less probably, for cooking. Altogether, I have come across six primitive hearths where the social circle had gathered to enjoy light and warmth at night or where food was prepared by day. It was fire that made food soft and palatable, the cooking vessels hard and tough. Little wonder that most primitive people have given divine honours to the "friend of man" (Rig Veda).

In later times the Ainu borrowed the flint and steel method of fire production from the Japanese. This was probably preceded by the use of pyrites with or without flint but there is little evidence of this in the sites. It can scarcely be doubted that fire was generally produced by the friction of two pieces of wood. According to R. Torii the bow drill is still employed by the inhabitants of the north Kuriles in the production of fire.* The bow is made of willow; the vertical piece is of *Shusu* and is twirled between two pieces of wood, the lower of which is of *Onko*. While we may assume that the primitive method of the "fire plough," which consists in rubbing a stick at an angle along the fibres of a soft piece of wood, was not forgotten, we only know definitely that the early Japanese created fire by means of the fire drill, a method which survives in the ancestral cult at Izumo and Ise. The object seen in Fig. 42, No. 3, was in all probability the bow of a drill; if so, we have a right to infer that a similar appliance was also used in the production of fire, as it is among the Kurile Ainu. The Yezo Ainu claim that they can make fire by friction. They have preserved the tradition of fire production from the dried roots of the elm tree.†

The horror and disgust which cannibalism inspires in the minds of civilised peoples is a conventional outcome of ethical culture which has steadily uprisen throughout humanity irrespective of the dogmas which

* T. J. Z. No. 190.

† "The Ainu and their Folk Lore," pp. 47 and 139. See illustration in Chapter on the Primitive inhabitants.

have accompanied it. Perhaps one ought rather to say that anthropophagy has tended to disappear in spite of religious dogma and ritual in which, among the representatives of advanced culture, we can only discern it in the guise of a ceremony of substitution. The world is yet too young for us to forget the part which it has played in the history of religion, an aspect to which attention will afterwards be called. The under current of modern culture also bears with it undoubted tokens that this practice was known throughout the world and represents a stage in the social evolution of all peoples. It is a problem which wears an increasingly academic aspect the farther it is removed from our own times. Much excavation will have to be carried out before we can satisfy ourselves as to the extent of this practice in the primitive culture. Prof. Morse, who is the pioneer of shellmound exploration in Japan, came to the conclusion that cannibalism was rife in prehistoric Japan. An examination of the human long bones from the Ōmori shellmound convinced him that they were "all fractured in a similar manner, either with the object of extracting the marrow or for convenience of cooking in vessels of too small dimensions to admit them at full length. When discovered they were entirely unrelated to each other. The bones were mixed indiscriminately with other remains of feasts. Some of them were strongly marked with scratches and cuts, especially in the areas of muscular attachment, where the muscles are separated from the bones with difficulty. The very mode of fracture in some cases is conspicuously artificial, and the surfaces for the attachment of

muscles are strongly incised. . . . A recent examination of shellmounds in the southern portion of the Empire has disclosed the most abundant and unquestionable evidences of cannibalism.”*

I have not specially examined the specimens in question but have found detached and fragmentary bones throughout the shellheaps, intermixed with the osseous remains of various animals which had apparently been broken and cooked for food. This coincidence is ominous and at first sight might seem to bear out the conclusion of Prof. Morse. On some of the human bones I have observed marks of scratching and cutting along the lines of muscular attachment. Such marks are compatible with the view that at the time of the formation of the shellmounds, the primitive people had not outgrown the practice of anthropophagy. But a careful examination of the human bones from my excavations has led to results at variance with those of Prof. Morse, so much so indeed, that I feel obliged to dissent from his verdict of prevailing cannibalism.

I have prepared a tabulated statement of the lesions found on these bones and may remark that this investigation was conducted with no bias against the theory of cannibalism, but simply with the object of ascertaining the position and nature of fractures and surface lesions. I have scrupulously recorded these, even when the latter seemed so trivial as to be of no significance. I have given, however, only the long bones, excluding also the fibula on account of its dis-

* “Shellmounds of Ōmori,” pp 17 and 19. 1879.

position to fracture and the absence of noteworthy injuries on the few specimens in my possession. For the same reasons I have omitted the ribs. The 35 bones here described constitute therefore a fair test as to the existence of anthropophagy and it was with some surprise that I noted the evidence which they present.

The first point to be observed is that they are by no means all fractured in a similar manner, either with regard to position or nature of violence. The positions indeed, could scarcely be more diverse. At least half of the positions of fracture were near the extremities of the bones; in over a third of the total number there was no fracture into the medullary canal; a large proportion of the remaining lesions were situated too near the ends to be of service in adapting the bone to the ordinary pot. Some of the pots, however, are deep enough to admit, with a slight reduction in size, even the thigh bone.

The position of fracture, however, does not differ from that occurring as a result of decomposition. The osteological remains from the Yamato caves and sepulchres exhibit fracture in the same positions as do those of the shellmounds, but there is no question of anthropophagy among the Yamato at the time of these burials, though it may have lingered among the lower classes, or in very exceptional cases, from motives of superstition. A limited experience of exhumation in Scotland and Tunis supports this opinion. On the other hand the long bones of mammals, such as the deer and boar, are usually broken in the middle, or reduced to small fragments. In the case of human

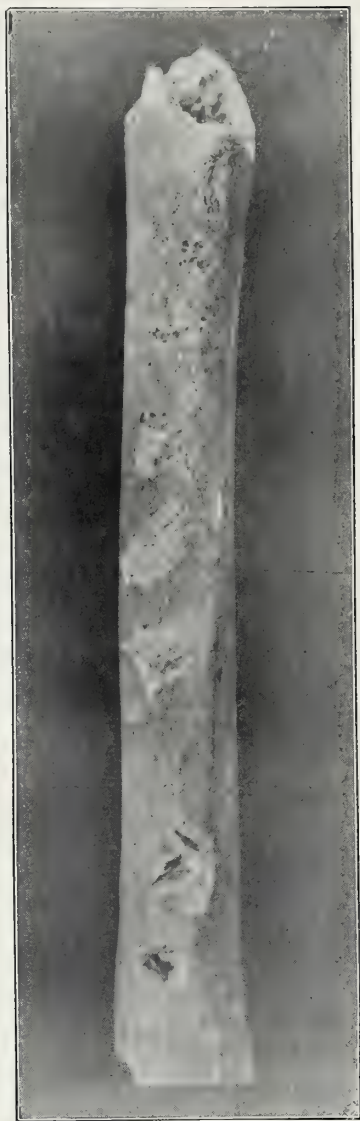
A

TABULATED STATEMENT.

RESPECTING THE INJURIES TO VARIOUS LONG BONES. FROM THE PRIMITIVE SITES OF JAPAN, IN RELATION TO THE QUESTION OF CANNIBALISM.

NAME.	SEX.	SIDE.	LENGTH IN MIL- LIMETRES.	POSITION OF OLD FRACTURE.	VIOLENCE At site of old fracture.	INJURY. To surfaces for attachment of muscle.	INJURY. To free surfaces.
mur.	M.	R.	348	Above condyles.	—	Doubtful. A very minute abrasion on linea aspera.	Three small abrasions, apparently produced by teeth of rodent, partly incised and partly punctured. I shall call these R.T. marks.
"	M.	L.	355	1. Below intertrochanteric line. 2. Internal condyle detached.	Doubtful; only slight scratching of disintegrated surface.	Doubtful. Three patches on inner surface, apparently produced by teeth of rodent.	Opening into medullary canal 3 m.m. X 15 m.m. slight abrasion of one edge of this perforation. A few R.T. marks.
"	F.	R.	329	—	—	—	—
"	F.	L.	330?	—	—	—	—
"	M.	R.	305	1. Near middle. 2. Supra condylar.	Edges of fracture, rounded by disintegration, violence extremely doubtful.	—	Slight abrasions and scratches on anterior surface.
"	M.	L.	302	1. Upper fourth. 2. Supra-condylar.	—	—	—
"	M.?	R.	372	1. Near intertrochanteric line. 2. Inner condyle.	—	—	Slight abrasion on lower anterior surface.
"	M.?	L.	362	1. Anatomical neck. 2. Condyles.	—	—	—
"	M.	L.	226	Both extremities.	—	—	Several R.T. marks.
"	?	L.	150	Both extremities.	Abrasion at proximal extremity. Bone much disintegrated.	Doubtful. A few transverse scratches.	—
dia.	M.	R.	290	Near tubercle.	—	Faint cuts, some of which are R.T. marks, on external and posterior surfaces.	Slight cut on crest.
"	M.	L.	302	Near tubercle.	—	A few doubtful cuts, possibly R.T. marks, on posterior surface	Cut or hack on crest. Injury by hacks or punctures (R.T.) of superior internal surface and inner condyle.
"	F.	R.	225	Near lower fourth.	Abrasion just above, but not at fracture.	—	A few slight scratches on anterior surface.
"	F.	L.	280	—	—	—	—
"	M.	L.	258	1. Near nutrient foramen. 2. 70 m.m. below. n.f.	—	—	Opening into medullary cavity, about 12 X 20 m.m., partly recent. No marks of violence.
"	M.?	L.	270	Both extremities.	—	—	One hack or cut on external surface, below the tibialis anticus.
"	M.?	R.	225	Both extremities.	—	Well marked punctured or hacked injury about 40 m.m. below nutrient foramen.	Two short parallel cuts near upper end, internal surface.
"	M.	L.	248	Both extremities.	—	—	—
"	?	R.	120	Middle fragment only.	Doubtful hacks near, but not at edges, of upper and lower fractures.	—	Opening into medullary cavity, about 10 m.m. X 8 m.m., on internal surface, no sign of violence. Probably from decomposition.
"	?	R.	100	Middle fragment only.	—	Shell or stone impression? on outer surface, one slight cut on same. Bone much abraded from decomposition.	Very doubtful slight cut on the internal surface. Bone much decayed.
umerus.	M.	R.	190	1. About 40 m.m. above trochlea. 2. Above Bicipital tubercle.	—	Eight abrasions and a perforation over origin of internal head of triceps.	—
"	M.	L.	180	1. About 40-50 m.m. above trochlea. 2. At bicipital tubercle.	—	Two punctate hacks over internal head of triceps and one below bicipital groove.	—
"	F.	R.	248	—	—	—	—
"	F.	L.	234	Near anatomical neck.	—	—	—
"	M.	R.	204	1. 150 m.m. from trochlea. 2. 55 m.m. higher.	—	—	—
"	M.	L.	130	135 m.m. from trochlea.	—	—	—
ilius.	M.	R.	182	1. Neck. 2. Above lower articular surface.	—	Scratch, probably recent, on posterior surface.	—
"	F.	R.	186	—	—	—	—
"	F.	L.	186	—	—	—	—
"	M.	L.	184	1. Below tuberosity. 2. 30 m.m. lower. 3. At expansion of lower extremity.	—	—	—
ula.	M.	R.	140	1. About 35 m.m. above nutrient foramen. 2. About same distance from styloid process.	—	—	—
"	M.	L.	96	Given length from tip of olecranon process.	—	—	—
"	F.	R.	178	At lower extremity.	—	—	Slight abrasions, probably new.
"	F.	L.	202	—	—	—	—
"	M.	L.	170	1. Near foramen. 2. About 70 m.m. lower down.	—	—	—

Fig. 145.



Humerus (nearly full size)
showing injuries possibly caused
by scraping, or perhaps nibbled
by rodents.

bones, the nature of the fracture varies almost as much as does its position. In not more than 3 instances out of 35 were there positive signs of violence near the site of fracture and of these only one seemed to me to be an effective injury. It is well, however, to remember that fracture in the case of a long bone does not always occur at the seat of violence, so that negative evidence is not conclusive. I have examined many fragmentary mammalian bones and have found positive signs of violence in a small proportion. But there could be no doubt that fracture had been employed in a large number, perhaps most, of the latter. They were generally broken into fragments of from 5 to 20 c.m. in length, showing sharp oblique fractures through the bone. I was particularly struck with the difference in the appearance of age between most of the human bones and those of other mammals. The vast majority of the latter are much fresher and less disintegrated than the former; to such an extent is this the case that the conclusion is forced upon one that many of the human bones are older than the others. This again suggests the question whether the remains of man were not sometimes disinterred from the ground in the preparation of new dwellings and thrown inadvertently on the shellmound. In this connection I ought to state that my experience does not quite bear out that of Prof. Morse regarding the admixture with animal bones. A few were found in this association but others not, and some from earth mixed with shells, even excluding the skeletons which were buried in or beneath this layer.

The surface injuries of these bones failed also to furnish proof of wide-spread cannibalism, though they are consistent with a limited degree of anthropophagy. In 5 only out of the 35 bones were the marks over the surfaces of muscular attachment sufficiently distinctive to warrant the suspicion that they were caused by the attempt to detach meat from the bone, and these are not to be regarded as conclusive. Possibly 8 out of the 35 bones showed lesions on the free surfaces which might have been produced by an implement of stone, but this again is doubtful.

Some of the surface lesions, consisting of punctures and scratches, appear to have been caused by the teeth of some rodent. In Fig. 145, which I have introduced here because it is, without comparison, the most suggestive of all the specimens which have come under my notice, these marks can be seen. I do not put this forward as a final explanation, but it is the best that occurs to me; it does not seem probable that such lesions were caused by the jagged edge of a stone implement. Even in this specimen the cuts do not quite correspond to what we would expect if they were produced in the attempt to detach muscle from bone. When this is the case the cut is generally deep at the start and shallow at the finish, or *vice versa*. There is some slight indication of this, but it is accompanied by the punctate marks above mentioned. It is necessary to state that this specimen was not mixed with animal bones, but was part of a skeleton found beneath the shell-heap. These bones showed some blunt lesions in the form of depressed lines which may have been caused by the pressure of shell edges

on the sodden and decayed bone, or they might conceivably have been due to the canine teeth of animals slipping on its surface.

Prof. Morse stated, with regard to a large shell-mound in Higo (Kyushu) "of 40 fragments found, more than half were those of man." This shellmound is described as being of "immense size." It is highly probable that this site was only partially explored, for it is out of all reckoning that not more than 20 animal bones should be found in a large shellheap. If this be the case, it might have been a local deposit, such as I have seen in other shellheaps, or it might have been due to a cause which will presently be mentioned. If the whole shellmound were explored, we must conclude that 20 human bones, more or less, is an insignificant number for a site of great dimensions, the formation of which probably occupied many human beings throughout a long period of time. One can well understand, however, that a local find would create a presumption in favour of cannibalism, which presumption would be increased by the previous occurrence of fragmentary human bones scattered throughout an extensive shellmound like that at Ōmori. From this site only sixteen fragments of long bones were mentioned and it appears that the greater portion of it was examined. I have not had an opportunity of counting the bones, fragmentary and otherwise, collected at the Imperial University from various sources, but I have seen them and they seem to be few in proportion to the places which have been explored by that institution, and by those who have contributed to it, during the past 20

years. In my own case I have not obtained more than 20 detached and independent long bones, or portions of such, from the Mitsusawa shellheaps, but more than a third of the area remains to be excavated. Most of these were much decayed.

The presence of detached human bones in the shellheaps may be accounted for in four ways;

1. They may have been disinterred from the soil and thrown on the midden. The apparently greater age of the human bones when compared with those of lower animals, gives some probability to this view. Few people who have not specially studied osteology can distinguish between the fragments of animal and human bones. Were the primitive people able to do so, there is no reason to suppose that they would have given them special burial.

2. Such remains may have been exhumed by dogs or other animals and thus mixed with other bones. In primitive states of culture burial is often very superficial. We shall see that this is the case with the Ainu, who accuse foxes of eating the dead.*

3. The habit of killing the aged and infirm and of throwing the remains on the midden to be devoured by dogs, has been widespread throughout all primitive culture. It is mentioned in the Rig Veda† and traces of it are to be found, not only in ancient Greek literature but also in the folk lore persisting in modern Europe.‡ Lord Avebury (Sir John Lubbock) says the

* In the interior of Japan, the graves are sometimes protected by a special fence against the ravages of animals.

† Macdonell's "Sanskrit Literature," p. 163.

‡ Gomme's "Ethnology in Folk Lore," pp. 134-5.

Eskimo (who have been acquitted of the charge of cannibalism) "leave the human bones lying about near the huts, among those of animals who have served as food."* Even at the present day in China, dead bodies are occasionally left exposed to the appetites of ravenous dogs. In Kamtchatka, the dead were recently (if not still) given to the dogs and it would seem that this disposal of the dead is sometimes, as in the case of the Damaras, purposely carried out; "then they wont come and bother us."† Staking the corpse of a suicide, customary in England till the last century, involved the same idea. I do not suggest that this was the usual method of getting rid of the dead, but in the case of the poorer classes it may have been adopted. I think that the evidence of house burial is sufficiently established by my finds at Mitsusawa to form a precedent for the grave burial of the present Ainu.

It may be well here to briefly refer to the modern practice of burial among the Ainu, for it seems to me not only to suggest a reason for the paucity of human remains in the primitive sites but to be a direct descendant of house burial. The Ainu bury their dead away from their settlements, in the recesses of the forests. It is possible that this custom originated in the Kwanto and north during the troublous times following the Yamato invasion, but no instance of grave burial at this stage has yet been elicited. If grave burial proves to have taken place during the

* Lubbock's "Prehistoric Times," p. 512. Also "Origin of Civilisation, p. 382, for same practice among the Fijians.

† Spencer's Principles of Sociology," Vol. I p. 161.

neolithic period we may anticipate that utensils, broken or otherwise, accompanied the deceased. This should lead to their identification. The Ainu bury their dead with broken utensils,* an expedient frequently adopted in this stage of culture. Breaking destroys the life of the utensil; thus it attains to the spiritual status of the deceased and is available for his service. When the body has been placed in the grave, a roof is made of wood so as to leave a space for the dwelling of the dead, upon which the earth is heaped. With a difference of material and construction the same idea prevails here as in the barrows of England, the dolmens of Europe and Asia and the mausolea of modern times, namely the provision of a tenement for the dead.

4. General cannibalism or restricted anthropophagy has been deduced from an inspection of osseous remains in other countries. We might assume that human bones thrown on the midden after having been cooked and eaten, were usually disposed of by dogs. When, however, we consider the great number of animal bones that occur in the sites, this assumption loses much of its validity.

Moreover, my investigation has assured me that the sites of fracture do not generally correspond to those of bones broken for the sake of the marrow or for the pot; that evidence of violence at the fractured ends is uncertain, while the position and nature of fracture in

* Batchelor says, "Nicknacks, cups, a ring or two, a few beads, a saucepan and some clothes are buried with the women; a bow and quiver, an eating and drinking cup, tobacco, a pipe and a knife are put in with the men, and playthings with the children."
"The Ainu and their Folk Lore, p. 558.

a large proportion of the animal bones is characteristic of direct violence, though surface lesions are usually wanting. It shows that the injuries to the surfaces are not solely placed so as to detach muscle from its attachment to bones, while appearances suggest that some of the lesions were caused by animals. Other considerations which I have brought forward show that the occurrence of detached and broken bones, even when mingled with those of lower animals does not necessarily prove anthropophagy. Yet I am inclined to attribute some of the lesions found on these bones to direct and probably intentional injury. Taking the whole circumstances into consideration, I think they can best be explained by the conclusion that anthropophagy had lingered on in a fitful and attenuated degree, perhaps associated with religious ritual, into the era which produced the neolithic shellmounds, but that general cannibalism had lapsed before their formation.

If ritual anthropophagy be, as it surely is, a survival from promiscuous cannibalism, we have the same right to infer its existence in Japan as in Europe, where the vestiges of its former prevalence have not yet vanished. I shall give some instances of survival in the chapter on primitive religion ; it is appropriate to quote here the tradition which Batchelor received from the Ainu :—" The Ainu were formerly cannibals. Not only did they eat the flesh of bears, deer and other animals in its raw condition but they used to kill and devour their own relations also. They even ate them without first cooking the flesh, &c." Except as a possible ritualistic observance, the consumption of

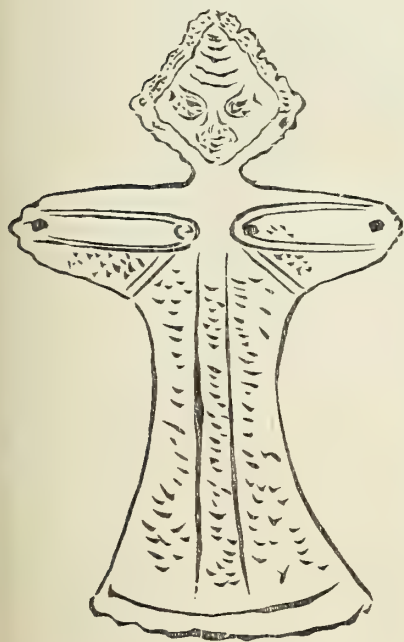
raw human flesh points to a condition too primitive for any possible reminiscence.

Had cannibalism been prevalent in Japan, it could scarcely have failed to impress the Yamato, who began to write reliable history 1200 years ago, and who had attained a knowledge of writing about three centuries earlier. At that time the Yezo were holding the country to the north of the Kwanto and had been long in close contact with the invading race. Yet there is no definite statement of any such custom, though the Yezo are said to have drunk blood, as they do in the ritual sacrifice of the bear at the present day. Apart from the meagre evidence of the sites and the tradition of the Ainu, there are some indications in folk lore that anthropophagy existed as a thing of the past. Such legends do not necessarily prove recent practice; they are capable of surviving for periods which stretch back into the prehistoric; their antiquity can be roughly gauged only by their associations. So far as our present knowledge goes, it is probable that the practice of anthropophagy had lapsed before the Yamato occupation of the Kwanto, or that it was conducted in secret as a lingering survival of ritual anthropophagy, which in turn had outlasted an indefinitely more remote custom of promiscuous cannibalism.

The fundamental ideas of food and shelter which actuate the toiling millions of humanity are little more exigent than that of dress, though its significance as a means of personal attraction has become merged in the later purpose of preserving the temperature of the body. Notwithstanding that some con-

fusion has thus arisen regarding its primary function, there can be no question that the habit of dress originated in personal decoration. As a means to an end, namely sexual selection, it is almost impossible to exaggerate the importance of personal embellishment in modifying, sustaining or emphasising various characters of the race. Whether in the ballroom costume, where the alluring motive is revealed in its open display of the human form, or in the somewhat less discreet apparel of the savage, where the covering has no higher intention than the gewgaw, the primitive purpose is the same, universal, instinctive, deep rooted in a remote and speechless past.

Fig. 146.



This innate perception of the function of dress is rather aptly illustrated by the images of the neolithic culture in Japan. Though a certain degree of *déshabillé* is the rule rather than the exception in the figures, decoration is almost never absent. In some, this has attained extravagant proportions and in others it is combined with caricature to an extent which renders discrimination

between dress and decoration a quite impossible task. It is not improbable that these figures, or some of them, were covered or garnished with actual textiles. Fig. 146 is taken from a sketch in an illustrated manuscript in my possession. The original figure was found in Yezo, about 12 miles from Hakodate, in the 10th year of Kwansei (A.D. 1798), along with three others of a similar kind. An Ainu of Mombetsu claimed it as a "divine figure" and said that it was dressed in *Mouri*. This word is given by Batchelor as *Mouru*, a "chemise, shift." It was slipped on over the head like that primitive garment the smock, formerly also a chemise, which originally denoted a piece of material with a hole for the head. The *Mouru* was stated to have been worn as a garment in districts remote from the Japanese. The spots around the eyes and below the nose of the figure were recognised by the Ainu as tattooing. The hair was said to be plaited, coiled and fixed behind, and the Ainu of certain districts mentioned were said to wear it in this fashion. Figs. 123, 127, 131 and 132, (No. 1) appear to represent various degrees of undress. Others are apparently wearing a fuller costume, in Figs. 128 and 129 perhaps a short smock with trews. Japanese archaeologists sometimes distinguish two kinds of the latter garment, long and short. The decoration of Fig. 129 might be set down to tattooing but probably stands for embroidery, still used by the Ainu, some of which patterns it resembles. That of Fig. 128 possibly represents the markings of scales on fish skin garments. Something approaching it is seen on the

dressess of fish and bird skin represented in the "Kita Yezo Zusetsu."* Fig. 132, No. 3, shows the *Mouru* as in Fig. 146. So far as one may judge from the figures, some kind of protection for the feet was worn, perhaps of bark of trees or hide; pieces tied round the ankles, as appears in an illustration of the above work,† may have sometimes been used, though in some figures the toes are faintly outlined. Head coverings were apparently known. A kind of hat is seen in Figs. 126 and 147.‡

Fig. 147.



Although no specimen of actual textile has been recovered, the impressions of fabrics on the earthenware vessels of the primitive culture form a record

* Vol. 1, pp. 16 and 17. Vol. 2, pp. 3, 4, 16, &c. Vol. 3, pp. 20 &c. Vol. 4, pp. 1, 2, 16 &c.

† Ibid. Vol. 1, p. 9.

‡ T. J. Z. No. 142.

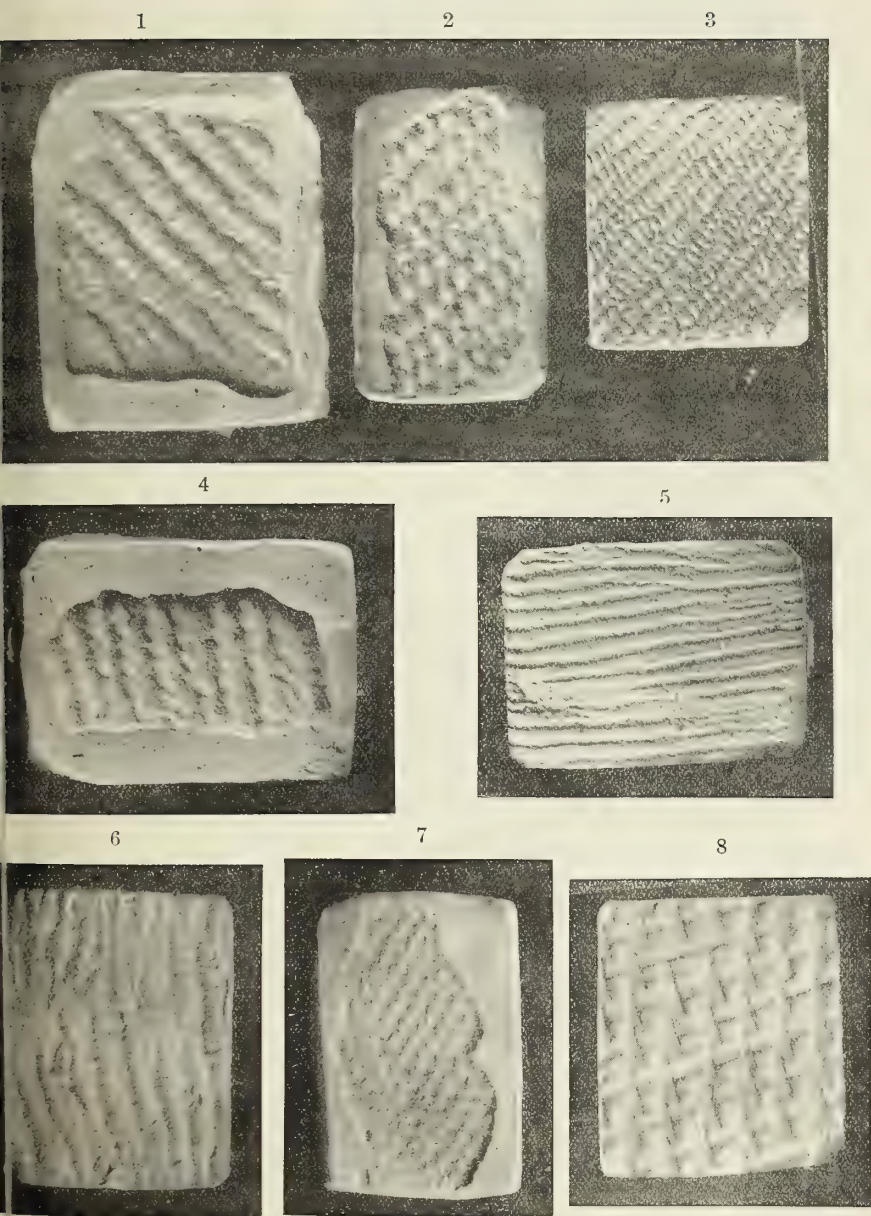
as complete as any written description. By applying a plastic material such as potters clay, to the web marked surface of a piece of pottery, the arrangement and character of both warp and woof can be distinctly seen. Fig. 148, Nos. 1 to 3, are plainly woven fabrics of coarsely spun material, prepared from the fibres of a plant. The Ainu still make cloth from the bast of the elm tree. Batchelor tells us that the name of their cloth garment, *Attush*, means simply "elm fibre." This primitive cloth, however, is giving place to the cotton materials made in Japan and Europe.

One occasionally sees impressions of textile somewhat finer than No. 3. Such is shown in Fig. 166, No. 9. Such specimens of homespun, though not of gossamer delicacy, were doubtless much appreciated in their day. I imagine that the twisted strands seen in No. 4 were either part of, or were affixed to, some fabric. Applied merely as cords to the wet clay it would have been exceedingly difficult to preserve their regularity, though the impressions might possibly have been made line by line. Two specimens of matting are given in Nos. 7 and 8; this is often much coarser than here represented.

Nothing is known about the colouring of textiles, but it is reasonably certain that cloth and matting were treated with vegetal dyes and the oxide and tannates of iron. We can scarcely be wrong in assuming that the employment of colour in personal adornment (a primitive function of clothing) preceded its application to pottery, which will presently come under notice.

The importance of personal ornamentation to the

Fig. 148.



TEXTILE IMPRESSIONS.
Retaken, to show Original Fabric.

makers of the *Dogu* or clay images appears also in the prominence given to various styles of hair dressing, tattooing or painting and the wearing of earrings, beads and other means of attraction. S. Yagi and S. Nakazawa describe four kinds of hair arrangement and it looks as if some of the present fashions had their prototypes in neolithic times. The coiffure in Figs. 149 and 150* would do credit to a modern belle.

Fig. 149.



A decoration resembling tattooing occurs on some of the images. Whether it represents tattooing only, is questionable. It may be assumed that face painting was also indulged in. Fig. 157 shows, among others, a shell containing vermillion, one of several from my excavations. Such shells are even now used

* Both from T. J. Z. No. 142.

Fig. 150.



Fig. 150 B.



by the Japanese for unguents ; they make convenient and dainty receptacles. Tattooing has the advantage over painting of indelibility and delicacy of outline, but it does not satisfy the desire for change which is found in paint and patches. We shall see that face

painting was practised by the Yamato and has survived in Japan as in other countries for festival occasion and the embellishment of the fair sex.

In the Nihongi a speech is given, said to have been delivered by Takenouchi-no-sukune to the Emperor Keikō. "In the Eastern wilds there is a country called Hitakami. The people of this country, both men and women, tie up their hair in the form of a mallet and tattoo their bodies. They are of fierce temper and their general name is Yemishi. Moreover their land is wide and fertile. We should attack them and take it."* This land was the Kwanto. As the Nihongi was issued in A.D. 720, tattooing must have been in vogue before that time; we may say long before that time. The Ainu still preserve this custom. The women are tattooed on and around the lips, commonly in the form of a moustache (Fig. 156,) but sometimes like the design in Fig. 151,† and also on the

Fig. 151.



* "Nihongi," Aston's Translation, Vol. I, p. 200. † T.J.Z. No. 223.

† After Koganei, "Beiträge zur Physischen Anthropologie der Aino" Band II. Taf. X.

forearms and hands. Rarely are the men tattooed in the form of an \times between the left thumb and forefinger, or with a similar design on the shoulder.* The tattooing is done with a knife and consequently the lines on the hand are generally straight, with an occasional slight curvature, an instance of the dependence of design on the material and implement of the artizan. Until recently, Japanese of the lower class were often tattooed, but the patterns were pictorial and done with the needle, which permits of fine degrees of shading and delineation. In the Luchus both sexes are sometimes tattooed with conventional patterns.

According to the tradition of the Yezo Ainu, the art of tattooing was taught them by the *Koropok-guru* or pit dwellers, but R. Torii ascertained that the Kurile Ainu attribute the practice to their ancestors.† As pit dwelling is still extant among the latter, we

Fig. 152.‡



Fig. 153.‡



Fig. 154.‡



* Tsuboi in T.J.Z. No. 90.

† T.J.Z. No. 209.

‡ T.J.Z. No. 223.

may take it that the Yezo legend is a development of the *Koropok-guru* myth.

In Figs. 152, 153, and 154 are facial patterns which betoken tattooing or painting. (See also Fig. 132 No. 3) So far as I have seen, the pattern in Fig. 149 occurs more frequently than the others. It has been supposed to represent lip buttons, but in such a mobile position, studs with triangular decoration could not preserve the symmetry so characteristic of this pattern on the images in question. The anthropomorph (Fig. 155) which I obtained from an Ainu at Piratori, exhibits a precisely similar pattern. This was recognised by an elderly Ainu as tattooing. It will be observed that it is somewhat different from the pattern in Fig. 151, but both of these designs are found on the obsidian object shown in Fig. 65. The reader will notice that the patterns on the obsidian relic resemble those of the tattooing on the Ainu arm, Fig. 156, in being composed of straight lines enclosing a lozenge pattern. The difficulty of carving round patterns on this glassy material is echoed on the skin, and becomes less insistent on the Ainu implements of wood, and the patterns of dress embroidery.

Trinkets of various material and form heightened the effect of other devices in the transformation of the outward person. Fig. 159 shows a series of beautiful pins for the hair and dress, carved in bone with much refinement of taste and technical skill. No. 4 is a model of an oar, such as one sometimes sees in Japan at the present day, yet it is from a primitive shellheap and can scarcely be less than a thousand years old; indeed it may be twice that age, though it comes from

Fig. 155.



WOODEN ANTHROPOMORPH.
(Showing mouth Tattooing).

Fig. 156.



AINU FEMALE.
(Mouth and arm Tattooing).

Fig. 157.



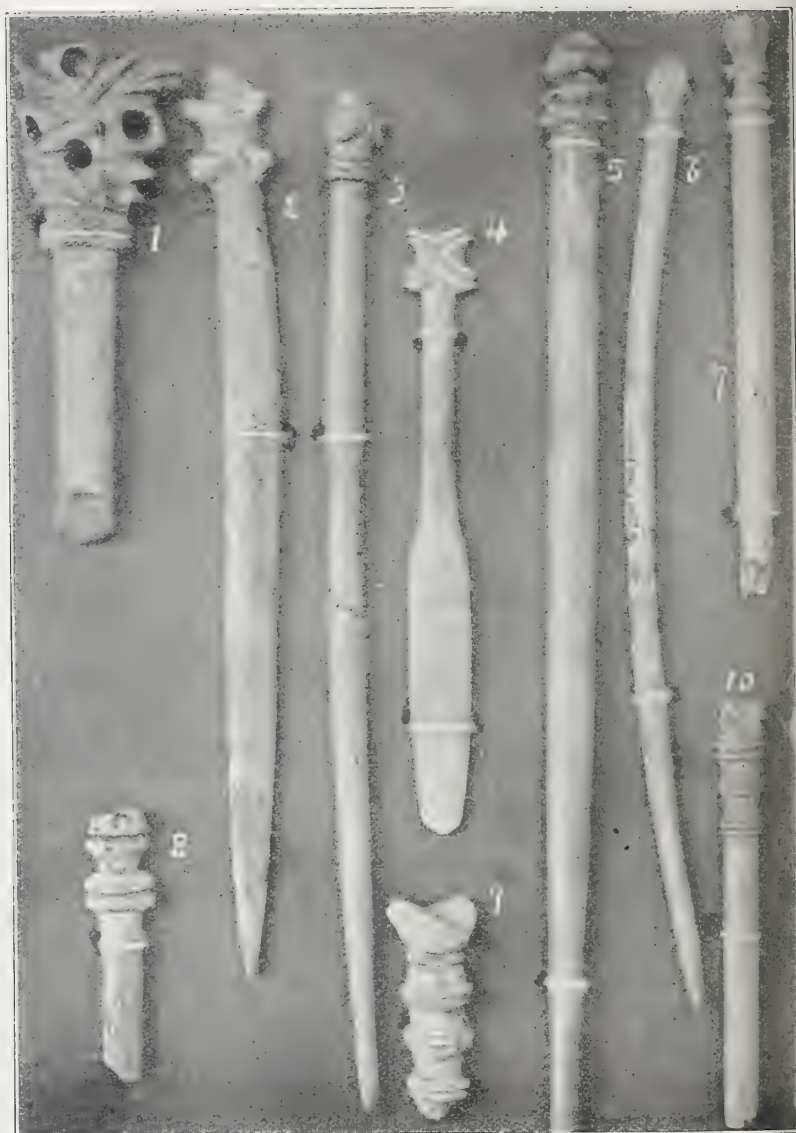
PERFORATED OYSTER SHELLS (probably Personal Ornaments,) AND
A CYCLINA CONTAINING VERMILLION.
(Quarter Size.)

Fig. 158.



SHELL BRACELETS.
(Half Size.)

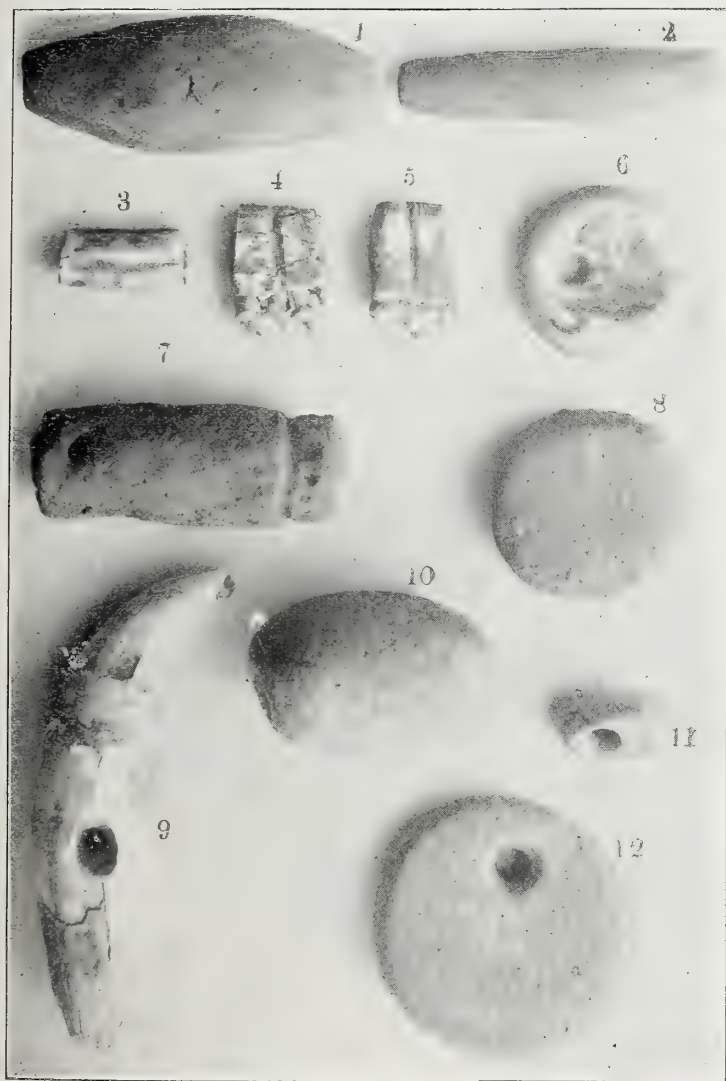
Fig. 159.



HAIR PINS.

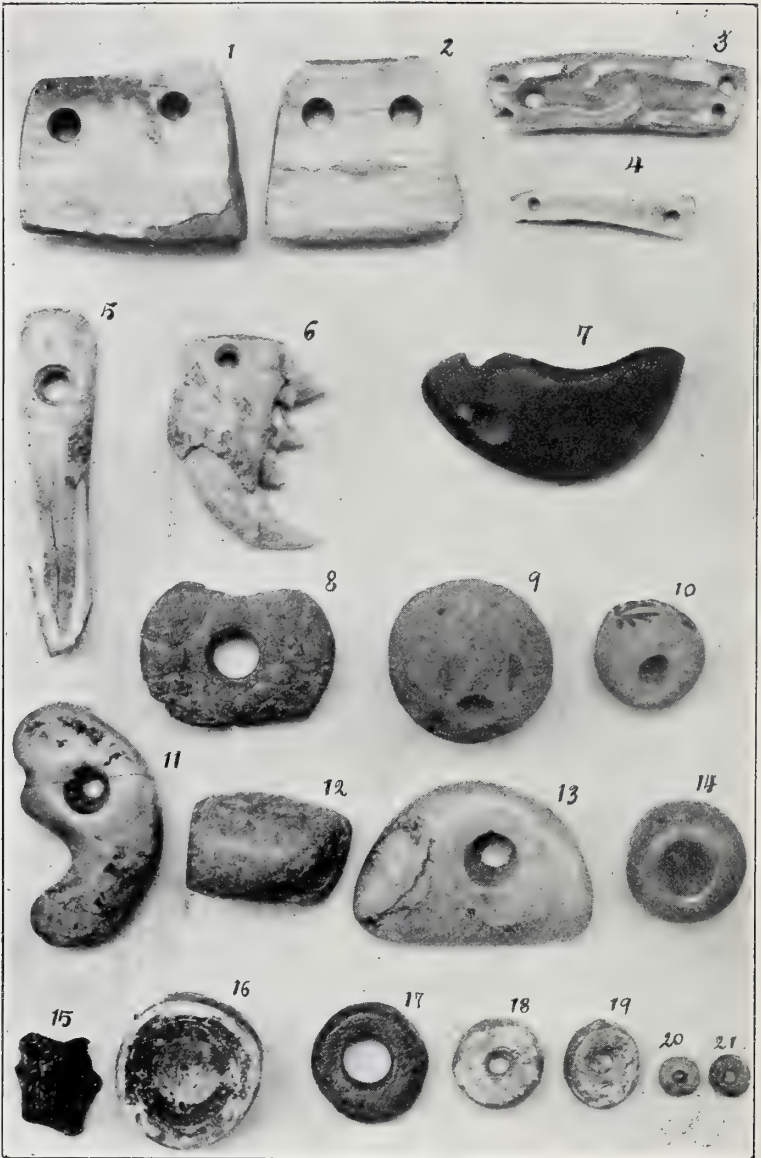
*(Tobisshime Collection.)***(Full Size.)**

Fig. 160.



BEADS AND BUTTONS.
(Full Size.)

Fig. 161.



ORNAMENTS OF BONE, STONE AND CLAY.

(Mostly from Takashima Collection).

(Full Size.)

Fig. 163.



4

3

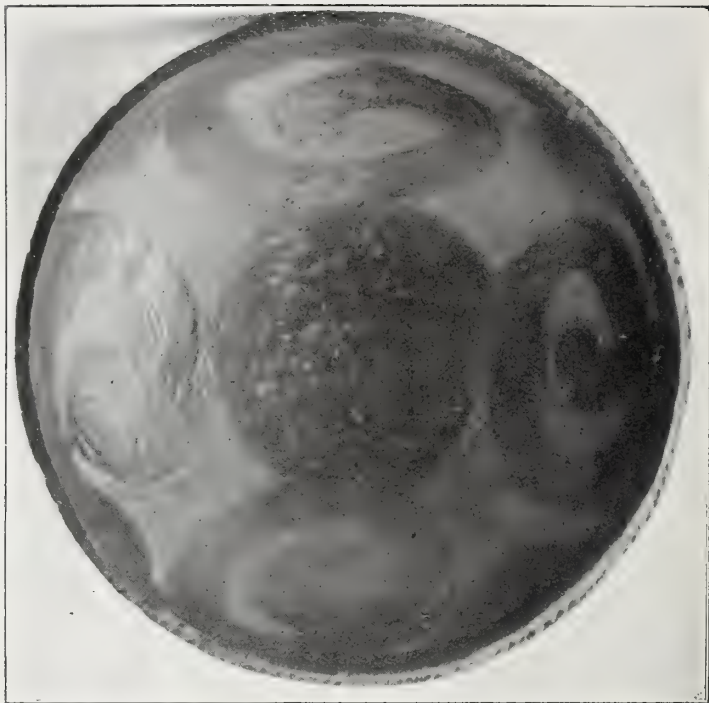
2

1

POTSHERDS SHOWING DESIGNS IN COLOUR.

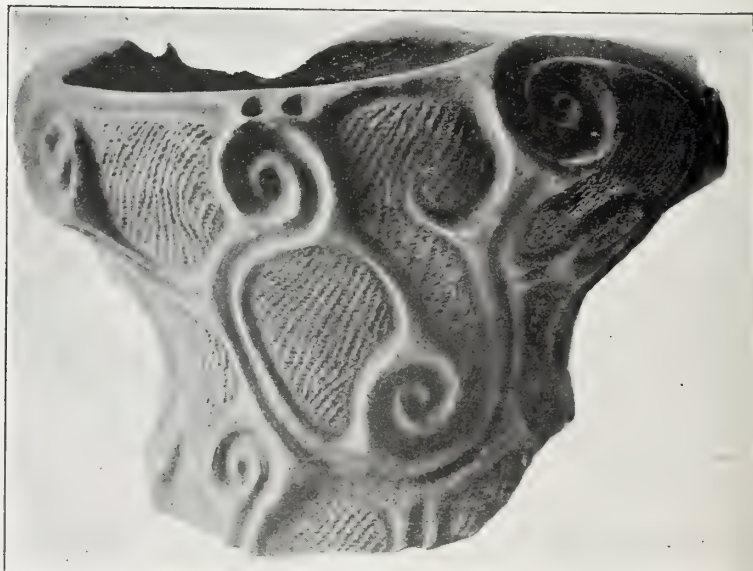
Mitsusawa Excavations.

Fig. 164.



INTERIOR OF BOWL WITH PATTERN IN RED PIGMENT.
(*S. Sato Collection.*)

Fig. 165.



DESIGN IN LOW RELIEF.
(*Takashima Collection.*)

Fig. 166.



TEXTILE AND OTHER IMPRESSIONS ON POTTERY.
(Natural Size.)

Fig. 167.



PATTERNS ON POTSDERDS (MAINLY INCISED).
(Quarter Size.)

Fig. 168.



PATTERNS ON POTSDERDS.
(Quarter Size.)

Fig. 169.



PATTERNS ON POTSHERDS (MAINLY MOULDED).
(Quarter Size.)

Fig. 172.



LEGS AND PERFORATED RIMS.
Nos. 1 and 4 show Inside Loops.
(Half Size.)

Fig. 173.



LUGS OF VESSELS.
(Half Size.)

Fig. 174.



AINU FEMALE DANCE, SHOWING DRESS PATTERNS.

Fig. 175.



AINU-PIPE HOLDERS AND LIDS OF TOBACCO BOXES.

(Half Size.)

Fig. 176.

1

2

3

4

5



AINU MOUSTACHE-LIFTERS.

(Half Size.)

Fig. 177.



AINU KNIFE SHEATHES.
(Half Size.)

north of the Kwanto. It is possible that some of these articles served as bodkins. In Figs. 160 and 161 are given a number of personal ornaments. Nos. 1 and 2 of Fig. 160 were probably, and Nos. 9 and 10 of Fig. 161 were certainly, beads of clay. No. 7, Fig. 160, which might be the leg of a clay image, has had a hole bored through it as if for suspension to the person. Perhaps it was an amulet; if so, it was doubtless as effective as any canonised bone. No. 8, of the same figure is a disc of earthenware cut from a potsherd. These are not uncommon and may have been used as counters in some game, or as a primitive abacus. No. 8, Fig. 161, is an ornament of stone; Nos. 7, 11, 12, 13, 14, 17, 18, 19 and 20 of Fig. 161, are beads and trinkets of stone. Of bone ornaments there are various specimens in Fig. 160, Nos. 3, 4, 5 and 9, and in Fig. 161, Nos. 1, 2, 3, 4, 5, 6, 15 and 16. No. 6 of Fig. 160 was perhaps a button, much like those of Europe. Another specimen like it has recently come to the Imperial Museum. Perhaps Nos. 12, Fig. 160, and 8 and 13, Fig. 161 were used as buckles. With regard to the origin of the form seen in Fig. 161, No. 11, there can be little question that it originated from a tooth or claw. The tusk No. 9, Fig. 160, might perhaps have been the ancestor of a form known to several primitive and barbaric peoples and held in great esteem by the Yamato. This form is called by the Japanese *Maga-tama* or curved jewel. I suspect, however, that the name comes from *maga* (curved) and the archaic Japanese, or Yamato, word *tume* a talon. Perhaps the *tama* or "jewel," also meaning "soul or spirit"

was formerly the claw of a sacred animal. It is possible that the Yezo copied it from the Japanese, as the latter attributed sacred qualities to it, but I am inclined to think that it originated separately and was ultimately modified so as to approach closer to the famous Yamato type. It seems to indicate prolonged contact between the two peoples.

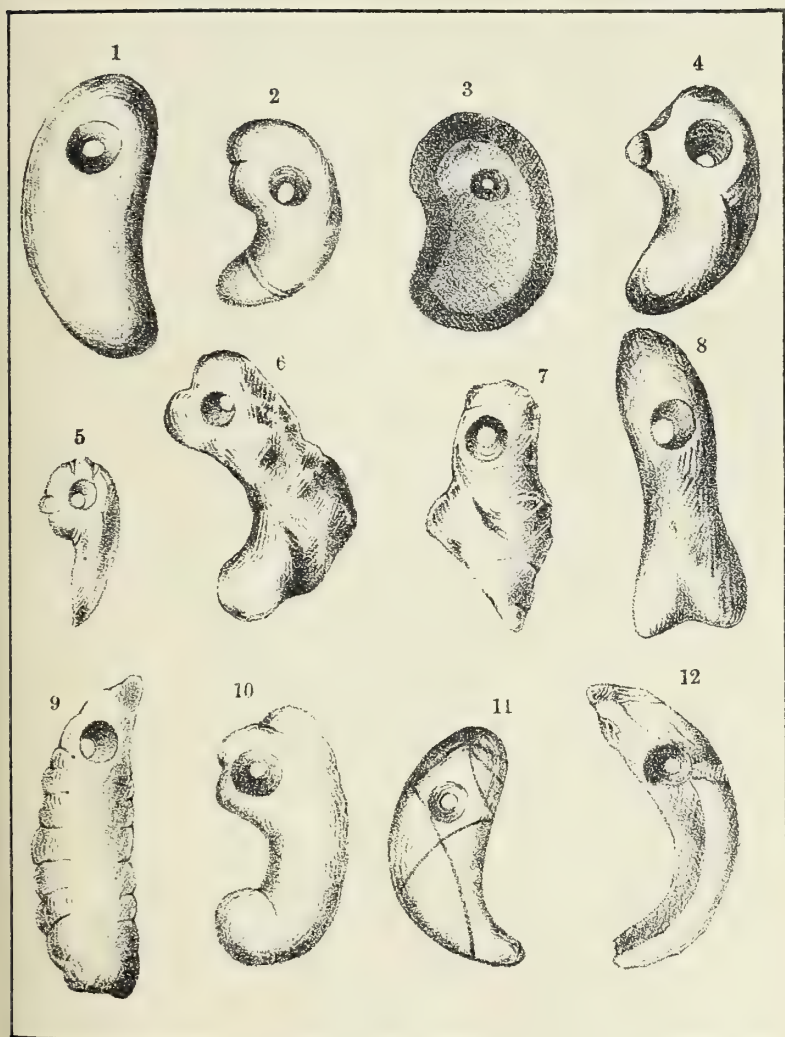
For the purpose of comparison with those of the Yamato, I have presented some forms of neolithic *magatama* in Fig. 162.* In Korea where the tiger has been deified from very early times, its claw possesses the highest reputation as an amulet, and it is probable that the tooth or talon had a similar function in the primitive culture. No. 10, Fig. 160 and No. 12, Fig. 161 are elongated beads after the fashion of the Yamato *Kudatama*. Somewhat similar beads are found among the Formosan aborigines, and in other instances of savage culture.

The bone objects, Nos. 3, 4 and 5, Fig. 160, and Nos. 15 and 16, Fig. 161, were decorated with vermillion. In the latter two this seems to have been applied as a paint. No. 16 is a vertebra of a snake which has been slightly trimmed, smoothed, and painted. No. 15 is apparently an imitation of the same, in bone.† I fancy they were used as ear plugs, perhaps for children. Possibly they were for lip or cheek decoration but as yet I have no satisfactory proof that such studs were in use. No. 3 of Fig. 122 is an exquisite specimen in earthenware. I think it is an earring. It is

* Mainly from the T.J.Z.

† This object, which is incomplete, is not well represented in the illustration; like Nos. 2 and 3 of Fig. 122 and No. 16 of Fig. 161, the edge is concave.

Fig. 162.



PRIMITIVE MAGATAMA.

(Mainly from T. J. Z.)

No. 12 is a perforated Tusk, the most common Form.

concave on the outer border as if for retention in a dilated opening in the lobe of the ear, while the decoration is so adjusted as to be visible in this position. Prof. Tsuboi and others have called attention to the large circular mouldings, on or near the ears of the images, or occupying their place; there seems little doubt that these represent earrings. Among the illustrations of clay figures belonging to the Yamato culture, the earring will be sometimes seen occupying the place of the ear. It is somewhat doubtful, but possible, that No. 2 of Fig. 122 was a plug for the ear. Many images have small perforations in the ear. At present the Ainu wear earrings of cloth, creeper or metal. In primitive states of society elsewhere, the hole is occasionally so dilated that the lobe hangs down to the shoulder when unoccupied by its proper "ornament." It is a mere guess, supported by remote analogy, that Nos. 1 and 2, Fig. 161 were plates of armour; it is better perhaps to regard them as pendant ornaments.

Fig. 157 shows several shells, perforated for attachment to the dress or suspension from the person. In Fig. 158, are bangles, made from shells. These were also used by the Yamato and will be further mentioned under that culture.

The reader will have gathered from the forms of the primitive pottery and the pains taken in personal decoration, that the social relations of the primitive people called forth no slight degree of artistic talent in design and execution.

Something remains to be said about the special decoration of the primitive pottery but it will be recognised that a work of this kind permits only the

most superficial reference to it. The vast amount of material at the disposal of archæologists in Japan would occupy several volumes on this subject alone.

Few if any persons now believe that the patterns of savage art ever represent a striving after geometrical designs. They are delineations which have gone astray. Portraiture is the ancestor of decoration, but its descendants often betray little evidence of their origin. As Prof. Balfour and others have shown, each successive copy, taken from one preceding it, instead of from the original model, becomes a point of departure for that which follows; this progressive alteration leads to profound modification at the end of a series. Some telling illustrations are given in Balfour's work,* one of which shows the unconscious transformation of a snail into a bird.

In the case of primitive art such a departure is hastened by lack of skill on the part of the original and of successive artizans, but other factors come into play, such as the perspective and shadow under which the object was seen and the interpretation of it by succeeding copyists. It has been truly said that all graphic art is more or less conventional, that is, it is never an exact representation of the object which it intends to portray. When the original motive has become highly conventionalised, so that interpretation is difficult, the imagination of the artist may even conceive the background to be the leading feature. The patterns known as *mitsu-domoe* (treble *tomoe*) and

Fig. 178.



* "The Evolution of Decorative art," by H. B. Balfour p. 26.

futatsu-domoe (double *tomoe*), are made up of three and two forms respectively which exactly resemble the Yamato jewel, called *magatama*. Prof. Tsuboi states that only the intervening space forms the Ainu pattern* and I am informed that the Ainu themselves insist upon this. In all probability the Ainu have borrowed this motive from the Yamato, possibly they have also adapted the form of some of their beads from the *magatama* model but have apparently failed to connect the latter with the *tomoe*.

Five modes of decoration may be seen on the primitive pottery, viz., 1. Colour. 2. Impression. 3. Engraving. 4. Low relief. 5. Free moulding.

1. Designs in colour are rare and always simple. These are mainly attempts to delineate elementary figures such as the triangle and circle and to emphasise low relief, as in Fig. 163. In No. 1, the depression in the moulding is alone filled with colour. The most elaborate which I have seen is the interior of a shallow bowl in the possession of S. Sato, Fig. 164. Red, white, black, or dark grey are the only colours which I have met in any indication of deliberate contour. Mica is not unfrequently found in the paste and seems to have been specially applied to the surface, where it gives a pleasing effect, shining like particles of gold. From the Mitsusawa site I have obtained potsherds of various colours though some shade of terracotta is the most frequent. On the thinner kinds of pottery, black, brown and grey are often seen. This might be partly the effect of use, but I believe both this colouring, and the polish which

* T. J. Z. No. 106.

often accompanies it, to be sometimes an intentional decoration. On the finer kind, too, the surface colour is sometimes chocolate, at others stone colour with a warm tint. Occasionally it is yellow. On a few specimens I have noticed a white colouration. This might be due to deposit of lime from the disintegrating shells, but I am inclined to think that it was an original colour. A large piece of flat whale-bone showed circular and triangular patterns in white. This was inadvertently washed, and the pattern, which appeared to be in chalk, was destroyed. Some of the thin pottery was of a bright red, almost pink colour. Lacquer was used, especially in the north, to decorate the surface of pottery and not uncommonly red paint, probably mixed with oil, was employed. Red ochre was sometimes used for the purpose and perhaps also for personal decoration.

2. I have already given a few specimens of textile impressions, reversed to show the texture, and mentioned the occurrence of matting, and leaves. Fig. 166 gives some illustrations of these. Impressions of something like a cereal are seen in No. 3, and dimpling caused by the finger tips in No. 7. No. 8 shows both a matting and leaf impression on the bottom of the same vessel. The reader will find in Fig. 170 markings which suggest the impress of the finger nail.

3. Patterns produced by engraving or incision are the most common, but they are often found in panels of low relief. The incision was usually done in the moist clay with various implements of wood, shell, or stone. Sometimes the lines appear to have been cut in the clay after drying. The combination of

engraved and relieved patterns gives a vast variety of designs, many of which are of considerable beauty. While it is by no means unlikely that the patterns generally were capable of a more definite interpretation than we can give them, the art of pictorial composition was seldom practised on clay. The only specimen I have seen, which seems to present an unequivocal attempt at picture making or writing, is that which I obtained at the Negishi site, Fig. 85. I cannot pretend to give an interpretation of these panels, but it is evident that they are descriptive rather than ornamental. There is an Ainu myth which has its analogy in Japanese and Russian folk-lore, to the effect that the world with its surrounding sea is supported on the back of a fish. Movements of the tail and body produce earthquakes, while the ebb and flow of the tides are due to its sucking in and ejecting the sea. The right hand panel of Fig. 85 might possibly be descriptive of this cosmic myth. But if this conjecture be wrong, we still perceive in these panels a pictorial relation between the objects delineated. It is probable that the cup or vase was for festival or ritual use and possibly this engraving constitutes a primitive book of Genesis. In Figs. 167 ; 168 and 170 some specimens of engraved decoration are given. Nos. 10 to 15, Fig. 168, show internal ornamentation, seen mainly in the finer grades of ware. When the depression is deep the neighbouring area has sometimes the effect of low relief. No. 10, Fig. 167, for instance, resembles No. 2 of Fig. 169 but in the latter the effect has been attained by the application of thin fillets of clay.

4. Low relief is most commonly found on the rims of vessels or as panels, but sometimes occurs as a general decoration, Fig. 165. Figs. 169 and 170 also exhibit some instances of the latter and they will be found on some of the pottery in the preceding chapter. Some of the designs thus formed are exceedingly curious and baffle attempts to discover the original concept. A comparison of various patterns with each other and with those of a corresponding status of culture elsewhere shows that the process of conventional departure has not invariably gone beyond recall and that the comparative method adopted by Holmes, Balfour and others may ultimately lead the investigator to trace back the origin of many of these quaint patterns.

In the case of Fig. 179, I have been led to regard the figures, within both circles, as lizards. The



Fig. 179.*

T shaped marks gave me the hint that these figures were conventionalised partly on account of deficient space. We cannot enter here into this matter except to say that although the exigencies of material and technique have in all but a few cases of incised and low relief decoration more or

less disguised the original motive, this can be more often recognised in the following style of decoration.

5. Free moulding, which perhaps describes the condition better than the expression "high relief,"

* From the "Senshi Kōko Zufu."




occurs principally on the lugs and rims of vessels and may be used to denominate also the variously ornamented handles of the primitive ware. The ornamentation on these often occupies a position between high and low relief. In Nos. 1 and 4, Fig. 172, we see loops projecting into the interior of vessels which prove that the idea of inside handles was not unknown to the primitive potters of the Kwantō (Mitsusawa site). In Fig. 171 several animal motives can be recognised such as birds (Nos. 1 to 4) boar (Nos. 7 and 8) and snake (No. 12). Nos. 5 and 6 of this figure seem to be bone concepts. The marrow bone, more or less conventionalised, is not a rare motive on this pottery. After all, it is not less appropriate than the representation of hares and other animals on the game dishes of Europe. Accustomed as we are to have our food cooked out of sight in utensils that are not exactly things of transcendent beauty, we find it difficult to realise that the artistic taste of primitive man should descend to the cooking pot, Figs. 73 to 79. But when we consider that the dining room was also the kitchen, where the food was probably cooked before the household and assembled guests; when we reflect that the cooking pot was also soup tureen and perhaps the whole dinner service, we cease to wonder at the appetising garnishing of these vessels. In Fig. 173, I have presented various forms of lugs, from which the reader may gather some idea of the complexity of these designs.

I cannot pass by the subject of decoration without a brief reference to the part which it has played in the

controversy between the upholders of the Ainu and *Koropok-guru* theories of primitive people. On behalf of the latter it is maintained by Prof. Tsuboi that the Ainu patterns are fundamentally different from those on the primitive pottery. This distinction is not apparent to me. Some difference must be admitted, but the similarity is more significant. If we consider the difference in the material used, the function of the implements and utensils, the changed circumstances of the primitive inhabitants and the effect of time in carrying slight alterations farther apart, it would be strange if no difference were perceptible. Have not Japanese and European designs altered during the past 1500 years?

The primitive patterns are found mainly on pottery, occasionally on stone and rarely on bone. Doubtless much of the work on bone has disappeared; what is left, Figs. 159 and 161, No. 3, is not unlike that of the Ainu. We may assume that decoration also existed in wood, but that is entirely lost. We may take it that the wooden implements had designs somewhat different from those on the pottery. Some difference will be observed between the decoration of the *Seki-bo*, Fig. 67 A, and the pottery, a difference not less than between the latter and the Ainu patterns on wood. If all the facial decoration on the clay images represents tattooing, which is very doubtful, we may say that some of it is distinct from, while some resembles, that of the Ainu.

The Ainu patterns occur on wood, bone, textile fabrics and skin. While clay imposes little or no restriction on the embodiment of the artists ideal, the

same cannot be said of wood. Here, not only the texture of the material but the implement used assumes great importance. It would not be surprising indeed if the wood carving of the Ainu previous to the employment of iron knives, differed from the patterns on the primitive pottery more than it does to-day. It may be added that the Ainu have almost inevitably had access to iron knives for at least the past 500 years. Tattooing with the knife on a material like the human skin offers an instance still more emphatic of modification due to material and implement. Sensitiveness apart, a parallel instance is found in the cutting of obsidian by a stone, or even iron, implement. In both cases straight lines are produced with much greater facility than curved ones; therefore they exist. The alteration in design by transference to other material has been specially demonstrated by Holmes in the case of basketry and textile fabrics.* The garments of the Ainu supply another instance of this, but the art of embroidery by which they are mainly embellished offers greater facility for exact reproduction than does plaiting or weaving. There is a tendency to work in straight lines, yet curves are freely used. The elements of these designs are seen on the neolithic pottery, and especially, I think on the *Dogu* or clay image. On the Ainu moustache lifters, knife cases and tobacco boxes we find the swastika and the scroll. The latter may be simple  or what I have called *Advolute*  and *Abvolute* . On the Ainu implements and primitive pottery are found

* "A Study of the Textile Art in its relation to the Development of Form and Ornament" By Prof. W. H. Holmes.

the animal concept and the anthropomorph. What appear to be vegetal concepts also occur in both, though less common on the primitive pottery. The elementary concept I have ventured to name the *Unigram*, by which I mean the delineation, however conventionalised, of a single feature, such as an eye, leaf, etc. This is found in Ainu as well as neolithic decoration. Textile impressions and areas of parallel lines are very common on the primitive pottery. Imitations of textiles and line engraving are favoured by the Ainu in their wood carving, Fig. 175, Nos.

Fig. 180.



5, 6 and 7. Many of the motives depicted in Figs. 175, 176 and 177, occur on relics of the neolithic phase; some material, which I have recently collected from the Ainu, shows a close correspondence. D. Sato and S. Sato, who have both had unsurpassed

opportunities of comparison, decided in favour of the similarity between the Ainu and primitive patterns. In the splendid collection of the latter gentleman I have recently seen specimens with decoration identical to that of the Ainu. This drawing, Fig. 180, which he kindly gave to me, shows an unmistakable likeness to the decoration of the Ainu dress, Fig. 174. Taking the primitive patterns as a whole, it appears to me that there is no more difference between them and those of the Ainu than obtains between the decoration of stone and pottery or between tattooing and wood carving. The difference due to technical causes is as great as, if not greater than, that supposed to result from culture or race. But though the difference in ornamental motives be less than supposed, this cannot be regarded as affording more than proof of culture contact between the Ainu and the primitive population. It does not establish their identity any more than the reverse would demonstrate more than one race.

Music and dancing must have been included in the life cycle of the primitive folk. What musical instruments they had, we know not; probably tomtoms and such like gave the rhythmic impulse to dance and song. The mask has also gone and the other expedients by which they affected to change personality in the religious and social drama. A few stones perforated by the *Pholas* have been found in the shell-heaps. These are capable of giving one or two flute-like notes. Possibly sounding stones were in vogue.

Some sort of trade was assuredly carried on by the primitive inhabitants. The variety of objects found

in the sites and the degree of culture attained, furnish ground for the belief that barter was well established. Whether there was a recognised medium of exchange is doubtful. I have suggested that arrow-heads might have served in this capacity, but we know nothing. The carriage of material from a distance, however, implies a give and take of commodities. Cinnabar (the native sulphide of mercury) occurs in several provinces in Japan. The Han Writings (1st to 3rd century A.D.) say "there is cinnabar in the mountains." Vermillion could be prepared from this by grinding in a mortar, so that the process was well within the resources of the primitive culture. S. Makita mentions Ise and Rikuzen as sources of this commodity.* It was in demand for the decoration of pottery, implements, weapons and ornaments of bone and stone. Hæmatite and red ochre occur extensively and were probably used for the colouration of pottery and decoration of the person. Obsidian, which was highly favoured for arrow-heads, is found in Bungo, Izu, Kai, Shinano, Tokachi and probably elsewhere, but is said not to exist in the Kwanto. Occasional arrow-heads and abundant flakes in the sites and on the soil, testify to its popularity in this region. Serpentine, argillite, andesite and other minerals for axes, chisels, mills &c. were transported from one locality to another, sometimes perhaps, in the finished state, but also, as in the case of obsidian, in the natural block.

* T. J. Z. No. 191.

CHAPTER VIII.

INTERMEDIATE POTTERY.

The character of this ware, its frequent occurrence in shellheaps and its occasional association with implements of stone, render it expedient to take it into consideration after the primitive and before the Yamato pottery, though a correct notion of it would be facilitated by previous consideration of the latter. The first specimens recognised as distinct from the ordinary shellmound pottery were obtained from the somewhat elevated land at Yayoi Street, Hongo, Tokyo, from whence was derived the name *Yayoishki* or "Yayoi style," by which it is still generally known. Through the exertions of S. Makita, S. Tsuboi, N. Ono, R. Torii, S. Yagi, D. Satō and others, this pottery has been found to be widely distributed throughout Japan from south to north. From Satsuma in Kyushu to Mutsu in the extremity of Honshu, it occurs in pits, shellmounds and in independent sites, both concentrated and scattered. I have found it in Yezo in a pit about a mile from Ranshima station in the province of Shiribeshi. It has some association with the relics of the Yamato, both direct and through a terracotta type of pottery known as *Haniwa*, found sometimes about the Yamato tombs. These, and other con-

siderations which will presently appear, have induced me to substitute for the term *Yayoishiki* the Japanese word *Chukan*, meaning "intermediate," which expresses a possible relation in time and unquestionably in the character of the ceramic product.

Before proceeding to describe the paste, decoration and form of this pottery, it may be not amiss to tell how I came to fully realise the position of this ware, although I had suspected it, in common with the foregoing archæologists, some years ago. S. Yagi informed me that a shellheap at Minamikase, a few miles from Kawasaki railway station, had been inspected by Messrs Emi, Mizutani and other gentlemen some years previously and found to contain this pottery. It had been discovered by that eminent investigator K. Wakabayashi, but unfortunately no systematic exploration was attempted. Thinking this a golden opportunity to establish the relation between the *Yayoishiki* and the primitive ware, I decided, after an inspection of the site to carry out an experimental excavation. I therefore engaged workmen and proceeded to excavate. S. Yagi undertook to watch the operations and report the conditions during my periods of absence. A road wending along the base of a low hill divided the site in two, leaving a cliff on one side and a gentle declivity on the other. Owing to a slight misunderstanding the work was undertaken on the unpromising declivity, but a talk with the proprietor enabled me to rectify this, so that we were able to attack the cliff whence I hoped to get clear evidence of the relation between the various deposits. The result was highly instructive. In the

covering layer of black earth, from 2 to 3 feet in depth, a few pieces of intermediate pottery were found. Then in a shellheap of about 8 feet in thickness, this pottery occurred with a few pieces of the primitive ware. Below this again was a layer about four feet deep, which contained only shells and primitive pottery. Quite underneath the latter, on the last day of excavation, I came upon a fireplace, covered by a thick layer of ashes: the deep red colour of the burnt soil clearly showed the position of the fire, near which were some large cobbles which had been used to retain the embers. Here was clear evidence that the Intermediate pottery overlaid a heap of primitive refuse and was therefore subsequent to it at this spot. No implements of stone were found with the former, but a piece of iron in the upper layer of earth suggested some contact with a later culture, though this cannot be taken as proved by such an occurrence. An investigation of the remains has demonstrated the close connection of the Intermediate pottery with that of the primitive people and an equally positive association with the ware of the Yamato. I propose to consider first the character of the paste and its decoration, noting its relation to both the primitive and Yamato types.

The pottery is not turned on the wheel and in this respect claims kinship with the neolithic ware. The character of the paste varies. It resembles the finer grades of the primitive rather than the sepulchral pottery of the Yamato. None of it comes up to the hardness of stoneware, a feature which is often, though not invariably, realised in the latter pottery. The paste is thinner and more uniformly baked

than most of the neolithic pottery, yet it is not superior to the higher grades of this culture. The surface colour is generally of a more or less soiled terracotta. The colour is sometimes light brown, sometimes it is dark brown, not seldom red, with occasionally a vermillion hue; a few fragments were quite pink. One or two pieces were of a steel grey colour, approaching one of the Yamato shades. Probably it was coloured with hæmatite.

The pottery is often marked externally and sometimes internally with lines scored on the surface of the clay before drying. This much resembles the lines on the interior of the *Suribachi* or earthenware mortar in present use and sometimes still seen on the exterior of vessels. This marking was evidently made by combs of bamboo or other material. It is sometimes found on the Yamato sepulchral pottery and usually on the *Haniwa* cylinders and figures. Rarely quite the same appearance is seen on the primitive pottery, but parallel lines are not uncommon. This marking is occasionally placed so as to give the effect of having been turned on the wheel, a decided approach to the residual lines on the Yamato pottery. Possibly, however, the turned lines on the Yamato ware were retained because they simulated the lines of the Intermediate pottery. The lines of the Intermediate pottery are sometimes crossed so as to imitate textiles, an effect seen on the primitive and on the Yamato pottery. The edges of vessels are sometimes crenated and the rims dimpled with the finger or blunt tool, but otherwise there is little attempt at moulded decoration. The Intermediate pottery is decorated in a very sub-

dued and sober fashion, quite out of keeping with the primitive ware. Occasionally it shows triangular and quadrangular patterns, after the fashion of the Yamato ware. But pottery entirely undecorated is found amongst the three kinds, Yamato, Intermediate and Primitive.

The relation of the Intermediate pottery to that of the shellheaps is therefore not confined to mere contiguity but extends to a resemblance in the paste and to a partial partaking of the same decoration. This applies especially to the upper deposits of the shell-mound at Mitsusawa.

The pottery of the Minamikase shellheap may be resolved into three groups, namely:—

1. Intermediate pottery.

- a. Undecorated.
- b. With distinctive scored patterns.
- c. Carrying Yamato patterns.
- d. Carrying primitive patterns.
- e. With mixed decoration.
- f. With hybrid patterns.

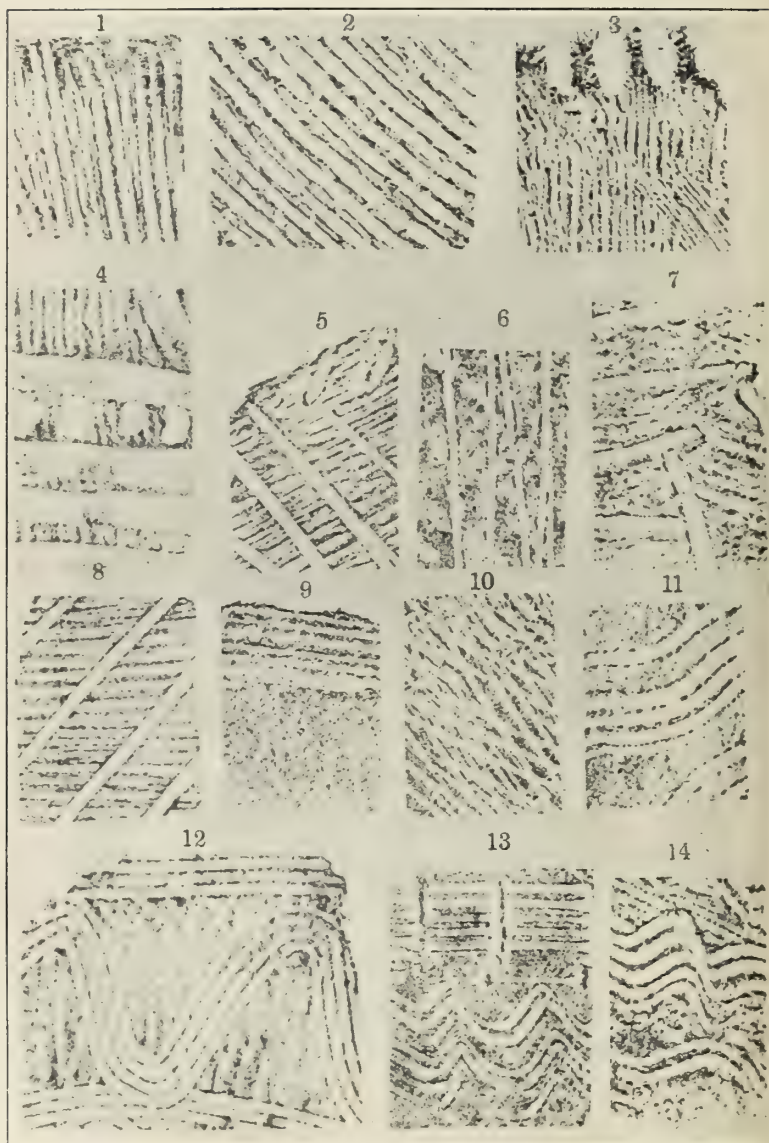
2. Primitive pottery.

- a. Undecorated.
- b. With distinctive patterns.
- c. Carrying scored patterns.

3. Undecorated pottery of ambiguous origin.

I present some tracings or *Uchigata* of the first group which I made after the Japanese method. This consists in pressing thin, damp tissue paper on to the piece of pottery by means of a pad of cotton wool then lightly touching the surface with a soft pad previously saturated with the ink used for seal-

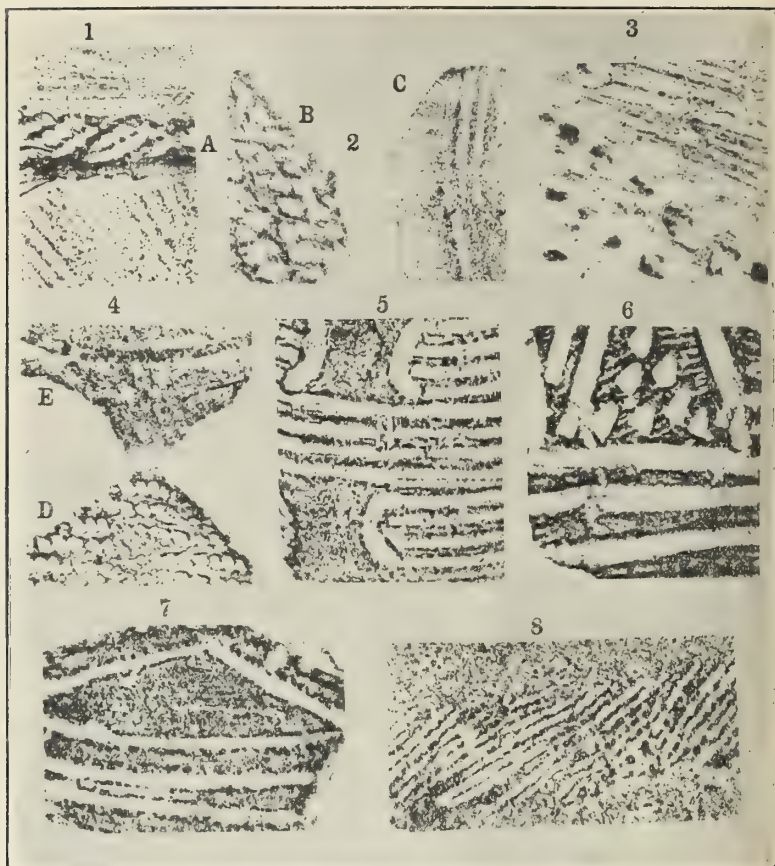
Fig. 181.



TRACINGS OF PATTERNS ON THE INTERMEDIATE POTTERY.

Fig. 181 shows patterns produced by the comb, brush or style. Nos. 3, 4 and 5 also illustrate the dimples or depressions before mentioned. These are sometimes interspersed between the scored lines to vary the effect. Occasionally these seem to have been done by a flat-ended stick or even by a hollow reed or piece of bamboo but finger impressions are found on the rims. Nos. 1 to 8 are characteristic of this pottery, the scoring seen in No. 3 being, so far as I have seen, the most common. The patterns in Nos. 9 to 14 resemble those on my Yamato pottery. A slight difference is noticeable but only in minor details. Patterns similar to Nos. 1, 2, 8, 10, 13 and 14 are not unknown on the primitive pottery. In Fig. 182, primitive motives, mixed decoration and hybrid patterns are shown. By mixed decoration I mean two (I have not seen more) different types on the same piece; by hybrid patterns, two types on the same ground are referred to. In No. 1 a band of textile (primitive motive) A, occurs on the edge of the rim, while on either side of it, representing the inner and outer sides of the vessel, are samples of the Intermediate patterns. Nos. 2 and 4 each show distinct types (Neolithic B, D and Intermediate C, E) on inner and outer surfaces. No. 3 exhibits both patterns on the outer surface. Nos. 5, 6, 7 and 8 appear to be primitive patterns, but in Nos. 6 and 7 the background is Intermediate. In No. 8 a band of primitive textile, though somewhat finer than usual, traverses a piece of intermediate pottery, otherwise undecorated. In the absence of decoration it is sometimes difficult, if not impossible, to distinguish between the finer grades

Fig. 182.



TRACINGS FROM THE "INTERMEDIATE" POTTERY, SHOWING CONTACT
WITH THE PRIMITIVE CULTURE.

of the primitive and the Intermediate pottery. The 3rd group is therefore a confession of ignorance, but it is good evidence of the close relation between the two kinds of ware. The occurrence of leaf impressions on some of the intermediate vessels is a further bond of relationship.

It can scarcely be doubted that we have, in the Minamikase shellmound, not only a superposition of the vestiges of a later upon an earlier culture, but that the steps of a transition are present. In effect, the Intermediate pottery approaches in its paste the primitive and in its patterns the Yamato pottery. Under the term Intermediate, I include all prehistoric unglazed pottery, thus far discovered, which cannot be identified with the primitive or the Yamato sepulchral ware. This is the best generalisation at present, though it is not above criticism. I have seen pottery in a burial cave which closely resembles the Intermediate in form and paste. One piece was a cinerary urn, probably not more than a few centuries old, perhaps a secondary interment. I have also some specimens of jars disinterred from the soil which probably represent a transition between the Intermediate ware and the inferior pottery of the present day. It may transpire that this group includes two or more distinct kinds; I imagine this to be the case, but the matter is relatively unimportant. More vital is the question whether we ought to include under this class the unglazed terracotta which is turned on the wheel. If we do, we forego a vital point of distinction between the Yamato sepulchral pottery and the rest. It is perhaps better for the present to retain this distinction, though I think there are hybrid kinds in which the body of the vessel has not been entirely finished by the wheel, yet in which the scored decoration is too regular to have been made without this contrivance.

In shape, this pottery is said to approximate to

Fig. 184.

1

2

3



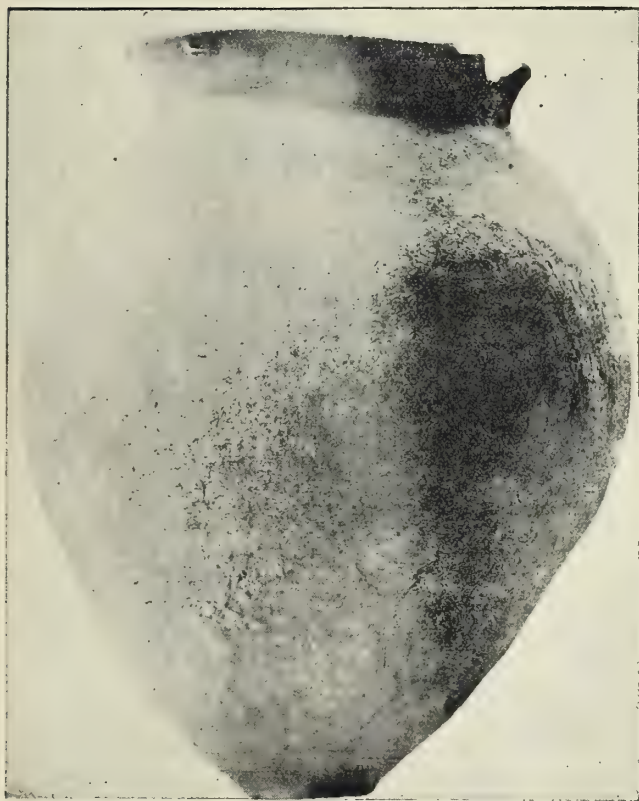
Imperial University Collection.

Fig. 185.



Imperial University Collection.

Fig. 186.



that of the Malay but I have not yet had an opportunity of verifying this. Some of it clearly resembles the pottery of the Yamato tombs and to a less degree the forms of the primitive vessels. N. Ono has given a series of forms,* most of which I have inserted in Fig. 183. Nos. 1 to 12 are distinctive, though not absolutely exclusive. Nos. 16 to 23 are found among the forms of the Yamato

* T.J.Z. No. 190.

Sepulchral pottery. The reader will also recognise forms approaching those of the primitive pottery. No. 27 is interesting on account of its sieve-like perforations. No. 12 is a stand for cup or chalice, the shape of which, slightly modified, is retained at the present day. In Fig. 184 the likeness of No. 1 to the chalice stand of the Nara temple, Fig. 102, is apparent, but the finish is quite superior. Figs. 185 and 186 exhibit two jars of this pottery. Nō. 2 of Fig. 187 is quite a modern specimen. Two of these are apposed and tied together for the purpose of enclosing the placenta, a practice formerly obligatory but now a mere "survival." The vessels are incised with the character *Ju*, meaning "Longevity." They are still made of unglazed terracotta and they have retained much the shape of the Intermediate specimen, No. 1. They are buried with the placenta in a special cemetery.* No. 2 of Fig. 188 is worthy of notice on account of a resemblance to some of the *Haniwa*, though it is not marked with the scoring so characteristic of that pottery. The piece has been photographed to show the interior. The form is conical with a perforation, made during moulding, at the base. What its object was I cannot say. With another placed end to end it might have formed a coffin for an infant, as this kind of jar burial was known in Japan. No. 1 of the same figure is a mounted bowl, or cup.

The occurrence of Intermediate pottery in Yamato

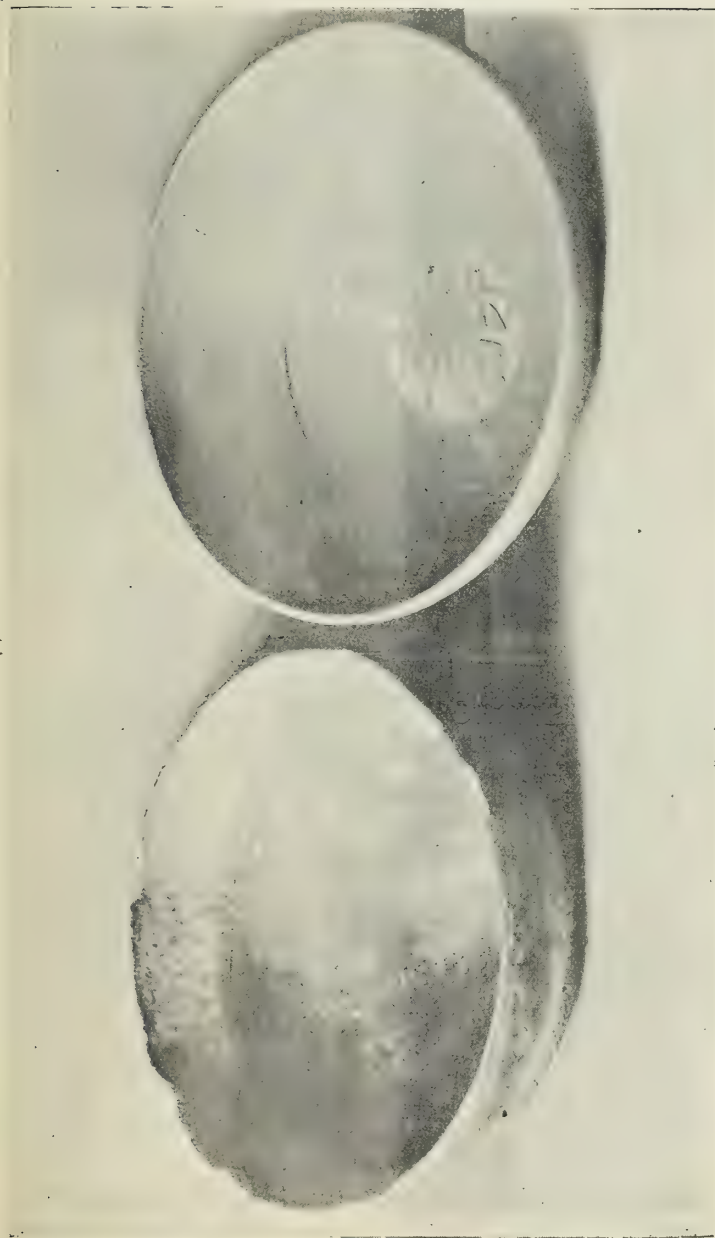
* This is undertaken by persons who make a business of disposing of the placenta for a small sum, a vestige of conventional custom. Formerly they were buried in a spot considered fortunate (free from obstacle or malign influence) for that year.

Fig. 183.



FORMS OF INTERMEDIATE POTTERY.

Fig. 187.

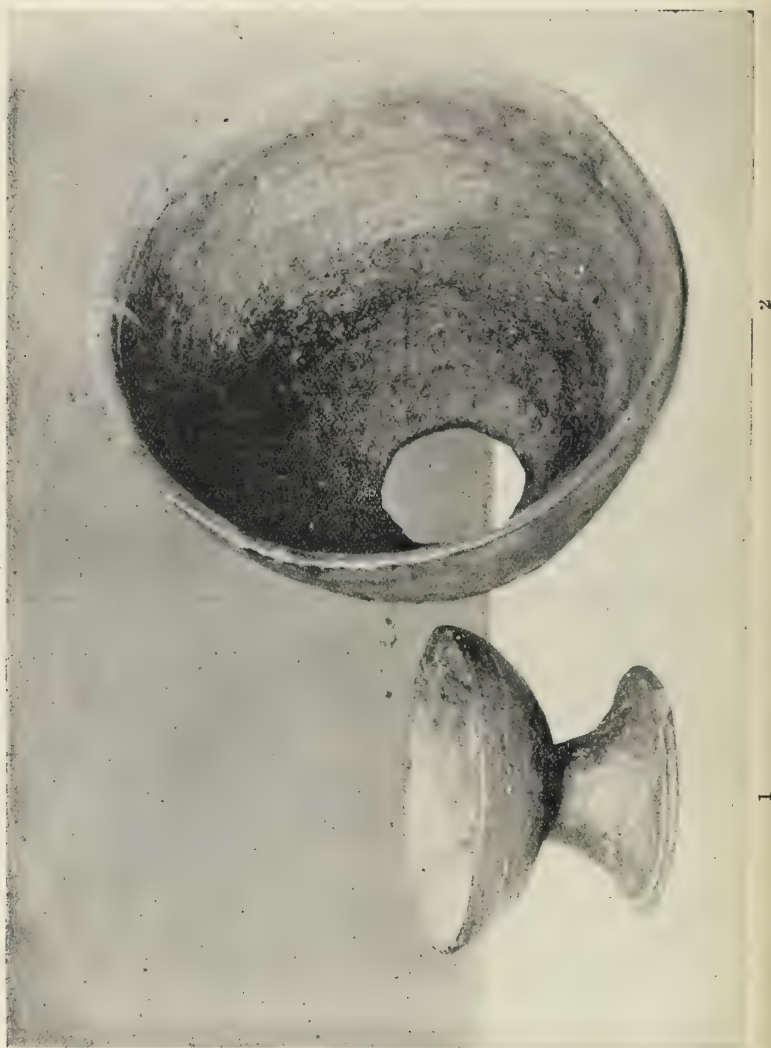


2

ANCIENT AND MODERN VESSELS OF TERRA-COTTA.

1

Fig. 188.



tombs, burial caves and cairns (N. Ono) and its association with sepulchral pottery in dispersed sites, leaves no room for doubt that it was in some way connected with the Yamato culture. R. Torii has found it along with sepulchral pottery in a pit. Charred rice has been

met with in Intermediate vessels. The total absence of the neolithic pottery from the Yamato tombs, with the occasional presence of the Intermediate ware therein, is highly significant. Whenever available, the classical sepulchral pottery would be used for burial because the offerings of food &c. were probably not only for the recently deceased but for all the ancestral spirits who had gone before. When the ceremonial pottery was inadequate it would be natural to give the same utensils to which the departed had been habituated or some "poor relation" or dependent might have contributed his dole as an offering of food or wine. Such considerations bear out the conclusion that this was a domestic pottery of the early Japanese and that, during the era following the primitive culture, it may have been made by native artisans, to supply the wants of the Yamato conquerors. This probability is somewhat increased by the fact that primitive potters are usually females.

PART II



YAMATO CULTURE

CHAPTER IX.

SOME BRONZE VESTIGES.

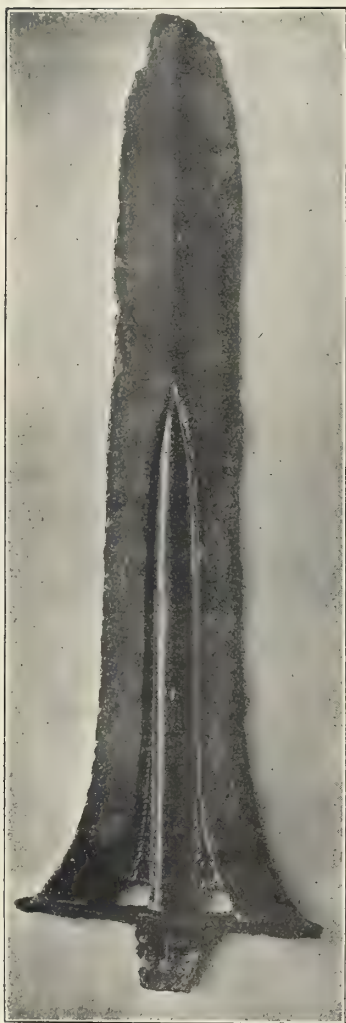
In the Preamble it was remarked that certain bells and weapons of bronze are met with in the soil of western Japan but not in the dolmens and other recognised sepulchres of the Yamato. With regard to the weapons two possible exceptions may be noted. Bronze swords were stated to have been discovered in a tomb in the province of Bizen and two halberds are said to have been found on a stone coffin in Chikugo.* These statements, however, are old and are not sufficiently supported. I am disposed to doubt whether all the weapons set down as halberds should properly be classed under that name. In doing so I am questioning the verdict of experienced archæologists in Japan and setting aside the fact that weapons of similar form have been used in China, though not, I think, of such size as some that are found in Japan. All the bronze weapons are double edged. The bronze hand weapons† may be grouped under 4 headings :

1. The short leaf form, Figs. 1 and 189.
2. The large leaf form, Fig. 190.

* T. J. Z. No. 173.

† K. Tsujimoto in the T. J. Z. gives the following percentage analysis: Tin, 8.923. Lead, 7.837, Copper, 83.125, silver, a trace.

Fig. 189.



(Half Size.)

Fig. 190.



(One-Sixth Size.)

Fig. 191.



(One-Sixth Size.)

*Imperial University
Collection.*

3. The attenuated leaf form, Fig. 191.

4. The straight form, Fig. 192.

1. The short leaf form is generally admitted to be a sword or dagger. It is usually about a foot (30 c.m. more or less) in length, has a central rib on either side of which, and on both faces of the weapon, there is often a decoration which we may call the pine tree mark, Fig. 189.* At the base of the furrow on each side of the central rib there is a perforation to enable the blade to be bound to the handle. The tang is short, flat, and is sometimes pierced for fixation to the handle. Sometimes the hilt is not quite at a right angle with the blade, thus suggesting an angular junction with the handle. Prof. Tsuboi has pointed out some resemblance between this sword and that of the Malay. The sword in Fig. 189 is suited to a handle like that of the Malay kriss, but the angular alignment of this part is also seen in central Asia. The stone model in Fig. 1, Page 7. has a straight hilt.

2. The large leaf form is usually accepted as a halberd. Possibly it may have been diverted to this function, or might, like the sword bayonet of modern times, have served a double purpose, but its shape is essentially that of a sword and I shall class it with this weapon. The specimen from my collection, Fig. 190, of which I have seen about 20 similar in size and form, weighs 6 lbs. (2.721 Kilos), is 33 inches (84 c.m.) in length and about 5 inches (13 c.m.) in greatest breadth. In this, and in others which I have seen, the loop at the base of the tang, or hilt, is a conventional

* The original was kindly lent by Mr. K. Takahashi.

survival without the perforation necessary to suspend the weapon or to fix it to a shaft. This conventionalised ring is merely a projection from the edge which has been prolonged down the sides of the tang. The depression in the latter, supposed to sustain the shaft, is, in many of the specimens I have seen, entirely inadequate for the purpose. In the above it is an irregular hole, the deepest recess of which is barely 2 c.m. in depth. In fine, this object, though defective as a sword on account of its faulty grip is an impossible halberd. It had become apparent to me that many of these so-called halberds were mere survivals of effective weapons, when I found a statement* by the late Baron Kanda, which seems to throw some light on this particular specimen. He called attention to the story in the "Fusō Ryakki," (Outlines of Japanese History) that in the 2nd year of Angen (A.D. 1176) the government ordered 10 bronze halberds to be cast in the south-east part of the enclosure of the Anrakuji temple in the province of Chikuzen. On what is believed to be this spot, 11 bronze weapons were discovered in the 4th year of Temmei (A.D. 1783), six centuries later, and in the vicinity a mould of hard clay was unearthed about the same era. The mould shows a form slightly less conventionalised than that of Fig. 190.

* T. J. Z. No. 24. Baron Kanda stated that this information was supplied by H. Egami. It is possible that the story in the old record was invented, or modified from another, to account for objects which had been previously discovered. More likely is the presumption that one or more having been exhumed and believed to be from the "Jindai" or "age of the Gods" (an expression still commonly used in connection with antiquities) others were made to commemorate or perpetuate the type.

Now, let us ask, why should the Japanese government at so late a date as A.D. 1176 order this antiquated type to be reproduced in the sacred precincts of a temple in Chikuzen? If the statement be true, and the discovery of similar weapons at the same place seems to corroborate it, we must admit that this ancient type of weapon still survived for ceremonial or ritual purposes. This conclusion is borne out by the appearance which I have above indicated. If the statement be wrong, it is still certain that this and other specimens of the same description are survivals which have outlived their active service, yet filled some office which the past had not relinquished. The existence of ceremonial iron swords, which, I have no doubt, are survivals of a bronze model, may be noteworthy.* (See Chapter 11.)

3. The attenuated leaf form, Fig. 191, is well known but is perhaps less often encountered than the preceding. This might have been a halberd, but in this state is almost equally serviceable as a sword. I have not examined enough of these to express an opinion whether the cavity in the end of the tang or hilt is deep enough to carry a shaft but the loop might have assisted fixation in this manner. It appears to me, however, more consistent with suspension to the person. Some of the Yamato swords had a simple ring at the end of the hilt and so had those of ancient China. The archaic character, indeed, represents a blade with a ring at the end, a feature also seen on the knife and sword coins of that country.

* These were used in Court and Buddhist ceremonies till the Meiji era.

4. The straight form, Fig. 192, was perhaps a spear-head, but might have been a light sword, as the section shows. There is much resemblance between this and some of the ancient bronze swords of China. Fig. 192.

About 10 moulds, said to be of stone, have been discovered in various places, but it does not seem likely that they would stand much heat. One or two of these are worshipped as deities, not an uncommon occurrence with actual swords. I showed the specimen, Fig. 190, to a friend who is an expert in metallurgy. He assures me that it was cast in a mould not of stone, but of clay. I found clay in the cavity of the hilt; a mould which I have seen appeared to be of clay.

Arrow-heads of bronze have been found apart from the Yamato tombs. So far as I know they are not distinguishable from those associated with the iron relics of the Yamato and will be described in that connection. They have the leaf form of the sword or halberd. Fig. 193, however, represents a series of undetached arrow-heads from the mould which are more primitive. They are evidently modelled after the arrow-



BRONZE SWORD FROM CHIKUZEN—FOUND AT SHIKABE.

(One-Third Size.)

No. 173 T.J.Z.

head of stone. They were found at Shizugaoka, Ōmi province, on a hill which is locally believed to be the site of an ancient camp.

Fig. 193.

In the "Shoshi Gundan" (Warrior's Fighting Tales) S. Yagi found it stated that human bones had been found in a big jar in Chikugo province and that bronze and iron swords were found alongside, under a large stone. The latter were said to have been reburied by the villagers as an earthquake occurred the same night. On proceeding to the spot indicated he found two jars of unglazed earthenware joined together at the rims which were plastered with clay, Fig. 194, but they were

Fig. 194.



(One Thirtieth.)

empty; each single jar was over 5 feet long and 2 ft. in breath. About eight feet distant, he saw two others but was unable to carry his investigation further. In the ground near by there were many pieces of Intermediate pottery.* It is stated in



(Actual Size.)

* T. J. Z. No. 173.

the "Chikuzen Fūdoki" (Ancient Records of Chikuzen) that in the 5th year of Bunsei (A.D. 1822) 35 bronze mirrors and 4 bronze weapons were found in the ground, the mirrors being in two jars connected as above. Burial in jars, though infrequent, has been noted in other parts of Japan. It may be of some interest to compare the method of burial associated with the bronze weapons, with the jar coffins of ancient Chaldea, Fig. 195.

Fig. 195.



CHALDEAN JAR COFFIN.

The bronze hand weapons have been found in 12 provinces of western Japan. Of these, 5 are in the northwest of Kyushu, three more are on the coast of the Inland Sea, one faces Korea and China, while the presence of bronze relics on the islands of Iki and Tsushima seems to indicate a connection with the mainland. I do not know whether bronze weapons have been yet found in Korea itself, but stone imitations, like that mentioned in the Preamble, Fig. 1, have been seen. The swords have been met with in Shantung. On the other hand the presence of a decided Malayan element in the population of Kyushu, together with some resemblance of the short bronze swords and Intermediate ware to the *Kriss* and pottery of the Malay, call for consideration. So far as the evidence at present goes, I gather that the bronze culture came immediately from central and eastern, rather than from southern, Asia, though the Malay

navigators may have carried material from the south-west to Kyushu. A proto-malayan strain in the southern Japanese does not necessarily indicate a bronze culture; the people now known as Malays did not come into prominence for more than a thousand years after the Yamato were settled in Japan. The intermediate pottery too, is allied to both the primitive and Yamato kinds and the oblique sword or dagger hilt has a prototype in central Asia as well as in Malaysia. It is noteworthy that the bronze weapons have not been found in the provinces of Ōsumi and Satsuma where, from the absence of Yamato dolmens, one might suspect not only a Malayan habitat but a centre of independent control.

I have reserved the bronze bells for separate treatment, for there is some reason to suppose that they belong to a separate cycle of events. I know of no instance where bells of this peculiar type, Fig. 196, have been found in a Yamato tomb; nor have they been discovered in the same sites as the swords of bronze. Up to the present they have been found in 24 provinces but only 3 of these have yielded hand weapons of bronze. Higo is the only province in Kyushu where one of these bells has been seen, while they extend as far east as Tōtōmi. In Mikawa, 12 specimens have been found, 11 in Tōtōmi and double that number in Ōmi.

The bells in question are oval in section. They vary in size from about 1 ft. to 4 ft. Fig. 196 is about 4 ft. 6 in. high. Small oval bells have been met with in the Yamato tombs as well as the *Suzu* or jingle bells but the *Dotaku*, (from *Do*

Fig. 196.



BRONZE BELLS.

(Tokyo Imperial Museum.)

(About one-twelfth Linear.)

"copper or bronze" and *Taku*, a large bell) are different in form and decoration. The ring is flat; there is a fin-like border running down the sides which may, as Prof. Tsuboi suggests, be a conventional survival of rivetting. Some ancient British bells of oval and oblong section have been wrought from plates rivetted together and Prof. Tsuboi has seen an iron bell from Africa with a rivetted, fin-like margin. A few bells of the shape characteristic of the *Dotaku* are of iron, and these, as well as some of the bronze ones, carry pictorial outlines of very rude execution. The surface of the bell is usually panelled with a textile imitation, leaving square or oblong areas, plain or occasionally decorated. The ring, top and edge often carry a decoration of spirals, circles or triangles; the two latter, especially, are familiar on the Yamato pottery. Bells of similar design were used in China during the Chou dynasty (1122 to 225 B.C.) and it is said that a decree was issued to the effect that for civil purposes wooden bells must be used and those of bronze for military matters. In an interesting communication* M. Teraishi has given illustrations of some of the bells of this dynasty, which much resemble the *Dotaku*, except that the mouth is crescentic like the small oval bell of the Yamato. He has also given illustrations of decoration from old Chinese and Japanese works,† Figs. 197 and 198, one showing the ornamentation of a bronze drum of the Han dynasty

* T. J. Z. No. 83.

† The "Sei Sei Kokwan" or "Considerations on Ancient Chinese Relics" and the "Kōjin Reki Un Kikō" or "Critical Remarks on the Kōjin Calendar." The latter is by the celebrated Scholar A. Hirata, a disciple of Motoori.

Fig. 197.

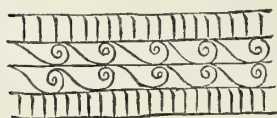
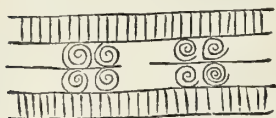
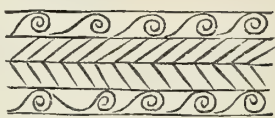
PATTERNS FROM A CHINESE
DRUM.

Fig. 198.

PATTERNS FROM A JAPANESE
BRONZE BELL.

(B.C. 202 to A.D. 220),* and the other from a Japanese bronze bell.

The *Dotaku* usually have square or oblong holes cut after casting. As a rule there are two on the top beneath the ring and two, sometimes more, on either side. Whether these were intended to suspend the bell, to vary the tone or from another motive, one can only guess. No clapper has been found, so it is probable that the *Dotaku* was struck from without. A series might thus have been used as a musical instrument; and the holes might have been made in order to correct the pitch.

There can be little doubt that the *Dotaku*, or its model, came from China. The combination of the circle, triangle and spiral was used in Egyptian decoration. The circle and triangle met with on the *Dotaku*

* Whether the first or after Han is not stated.

and, as we shall see, on the Sepulchral pottery of the Yamato, along with the fact that these bells have been found most numerous where the Yamato were formerly established, link them with that culture. A Han decoration does not by any means prove that the bells were not imported before that dynasty, but as one has been found with a mirror of that period and as they are occasionally made in iron, we may conclude that some of them were not long anterior to the present era. But it is strange that none have been discovered in the sepulchres of the Yamato.* The earliest find according to the "Fuso Ryakki" was in the 7th year of the Emperor Tenchi (A.D. 674), at which time dolmen building had not ceased; the second occasion was in the 6th year of Wadō (A.D. 713), while weapons, horse furniture, personal ornaments etc., were still being buried with the dead. At this time they appear to have passed out of memory. In earlier times there may have been a consensus of belief that the departed had no need for them. Many other objects in use among the Yamato are not represented in the tombs, those actually found being chiefly weapons and armour, personal ornaments, horse furniture and utensils for food and drink. In the Nihongi, copper bells "with chasings" are mentioned, and the use of bells to announce arrivals,† to attract attention of the authorities to complaints‡ and to

* According to the "Nihon Shakwai Jii (Japanese Social Dictionary) a bronze bell, now in the Soeji Temple at Ochiai village in Kotsuke, was said to have been found in an ancient tomb, but the statement is not authenticated.

† Aston's Nihongi vol. I. p. 386.

‡ Ibid. vol. 2. pp. 201, 210 and 211.

toll the hours,* is mentioned. It is not impossible that such bells were official tokens. It may be that they were formerly quite numerous but disappeared on account of the craze to make images of Buddha.†

Fig. 199 shows a bronze hoe edge which was found in the soil in Chikuzen. This form is different from

Fig. 199.



(Actual Size.)

the Yamato hoe, if the relics usually so-called are not axes, or chisels, but it has some affinity to the large hoe of that culture. The lack of variety in the bronze vestiges thus far discovered compels us to welcome any addition to the few that are known.

If we consider the *Dotaku* to be adjuncts to the Yamato culture what shall be said about the hand

* Aston's *Nihongi* vol. 2. pp. 167 and 227.

† "Coins of Japan" by the present writer. pp. 23 and 53.

weapons of bronze? Does the existence of swords or halberds, conventionalised for ceremonial or other purposes, point to a survival after the Yamato civilization had become established? Does the manufacture of such weapons under official order or sanction as late as the 12th century, indicate a recognition of historical continuity, or is it purely a fortuitous revival, based upon an accidental find? In the absence of positive information the main issue may perhaps be best met by the considerations given in the Preamble. There I stated that these weapons had not been found in Yamato tombs. If we accept the sword model in stone, Fig. 1, p. 7, as a copy of that in bronze, as we recognise No. 4 of Fig. 2 to be the copy of a vanished weapon, then we can say that the BRONZE MODEL was accepted as a worthy offering to departed ancestors. On the whole I am disposed to regard the bronze weapons as vestiges of the Yamato procession at a time anterior to the formation of the great dolmens and other tombs.

CHAPTER X.

YAMATO SITES AND SEPULCHRES

In this land, from time immemorial, houses have been built of wood and withe, while the ancient tombs have been excavated in rock, constructed of stone, or of soil banked up to form tumuli of sometimes considerable size. Such monuments would naturally outlast the ancient habitations, even when excavated in the ground as some of the latter appear to have been. Yet, when we remember the profusion of shellmounds and residential sites of the neolithic phase, it is somewhat surprising to learn that the Yamato locations, as distinguished by their archæological remains, form but a small proportion of the places occupied by the sepulchres of this people.

A list issued by the Imperial University in 1903 gives 3600 places of burial and this has been increased during the past four years. This list has been compiled from the accounts of many observers and does not always indicate the number or even character of these monuments, but it intimates as clearly as the circumstances permitted, that the actual number of tombs is very much greater than that of the sites above enumerated. It is not yet possible to form anything like an exact estimate,

but from what I have seen I should say that if we include the known caves and smaller mounds in our reckoning, there must be extant considerably over 50,000 tombs.

While most of the sepulchres, from their salient configuration, admit of easy discovery, they were for the same reason liable to destruction. Many have succumbed, less to the ravages of climate and earthquake than to the hand of the agriculturist and the makers of walls and fortifications.* During the turbulent centuries that have intervened between the dolmen period and to-day, most of the tombs have been rifled; it may be supposed that the empty chambers offered the less obstacle to active destruction. Yet it cannot be doubted that the fear of ghostly visitants and dreaded vengeance on the disturber of their haunts, has exercised a potent influence in the preservation of the tombs. Even now this fear is so general as to constitute a difficulty in carrying out archæological research.

The residential sites of the Yamato are recognised chiefly by the occurrence of broken pottery, scattered over a greater or less area, occasionally by the presence of ancient walls and rarely by the occurrence of pottery or other relics in pits. Extensive enclosures of low stone walls have been met with in Kyushu. Systematic investigation of these positions and the known locations of early Yamato govern-

* The Nihongi, refers to the destruction of tombs (under the Emperor Kotoku) for agricultural purposes and also "to include the ground in the site for a palace" A. D. 646 and 650. Aston's Translation Vol. 2. pp. 218 and 240.

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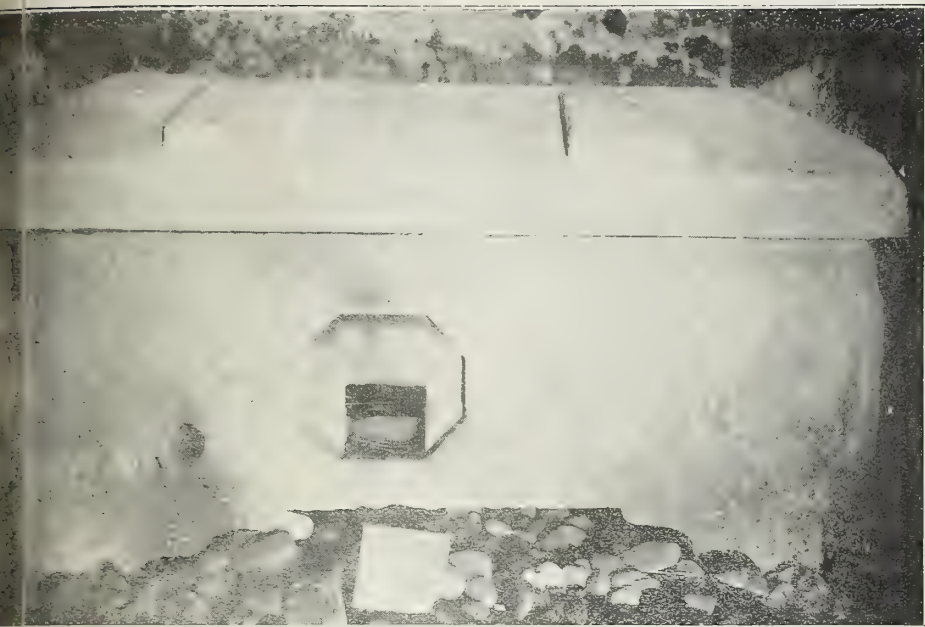
ment could hardly fail to expose numerous vestiges of that culture. It is probable that the paucity of such sites is less than appears, that attention has been too much concentrated on the more prominent monuments and that many vestiges underlie present towns and fields.

In Chapter 8, I have given some reasons for the belief that the Intermediate pottery, which is found both in pits and shellheaps, was connected with the daily life of the Yamato, possibly of the lower orders, and have also described in Chapter 3 the pit dwellings of the *Eta* and noted the existence of transitional habitations. A most interesting discovery by S. Wada of a pit at Hirano village in the province of Harima, seems also to connect the Yamato with pit dwelling. The pit was about 20 ft. in length by 17 ft. wide and was lined with vertical slabs of wood. It contained 18 pieces of pottery of the Yamato sepulchral type, two wooden pattens like the common *geta* still in use, platters of wood* etc.

In the *Kojiki* and *Nihongi* mention is made of the *Muro* or pit dwelling, as we have seen in Chapter 3. Some doubt exists whether the occupants were of Yamato or other stock. Aston points out that the names of the *Tsuchi-gumo*, appear to be Japanese and that "they inhabited such long-settled parts of Japan as Yamato, Harima and even Kyushu."† It is not improbable that some of the enemies referred to as living in *Muro* were of Yamato stock. In the

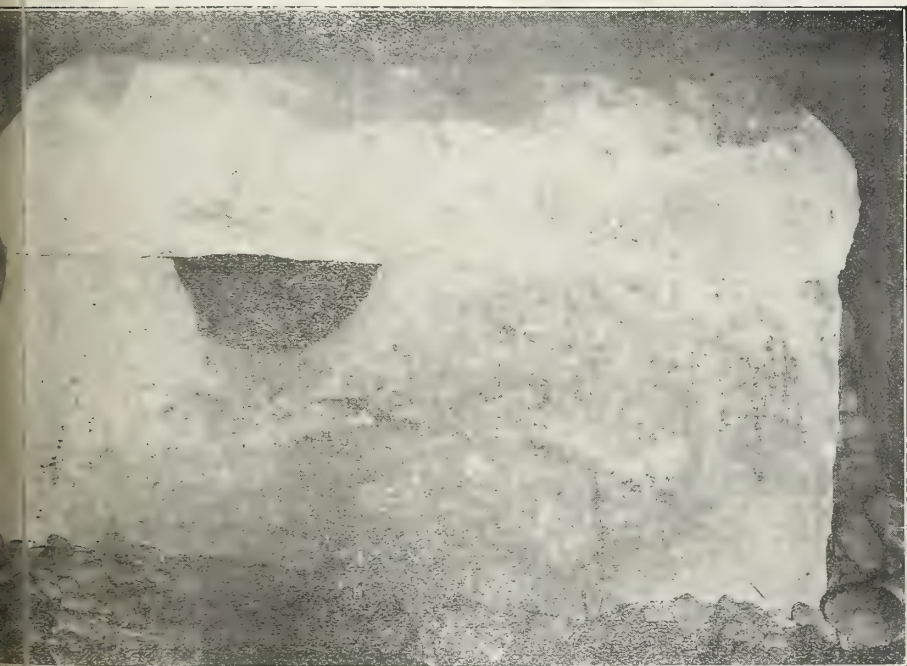
* K.K. Vol. 5, No. 1.

† "Nihongi" Aston's Translation, Vol. 1. p. 129



STONE SARCOPHAGUS.

Fig. 201.

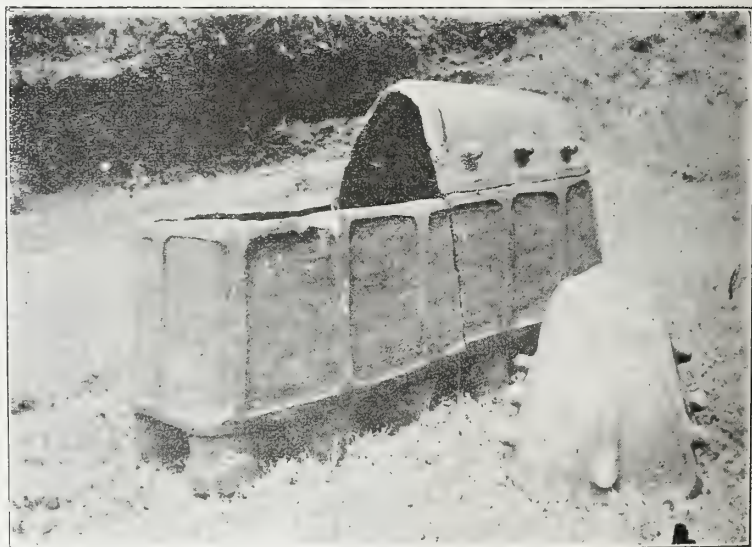


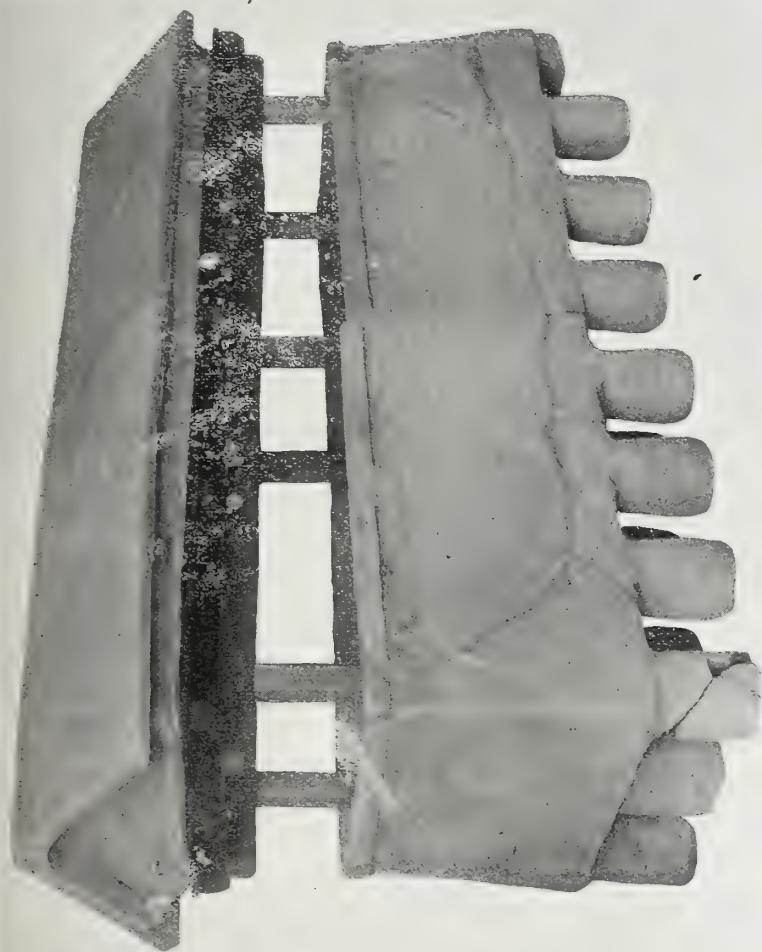
STONE SARCOPHAGUS.



STONE SARCOPHAGUS.

Fig. 203.

TERRA-COTTA SARCOPHAGUS.
(Photograph lent by S. Wada.)



TERRA-COTTA SARCOPHAGUS.
(Tokyo Imperial Museum.)



DOLMEN
AT DOMYOJI-YAMA,
KAWACHI PROVINCE.

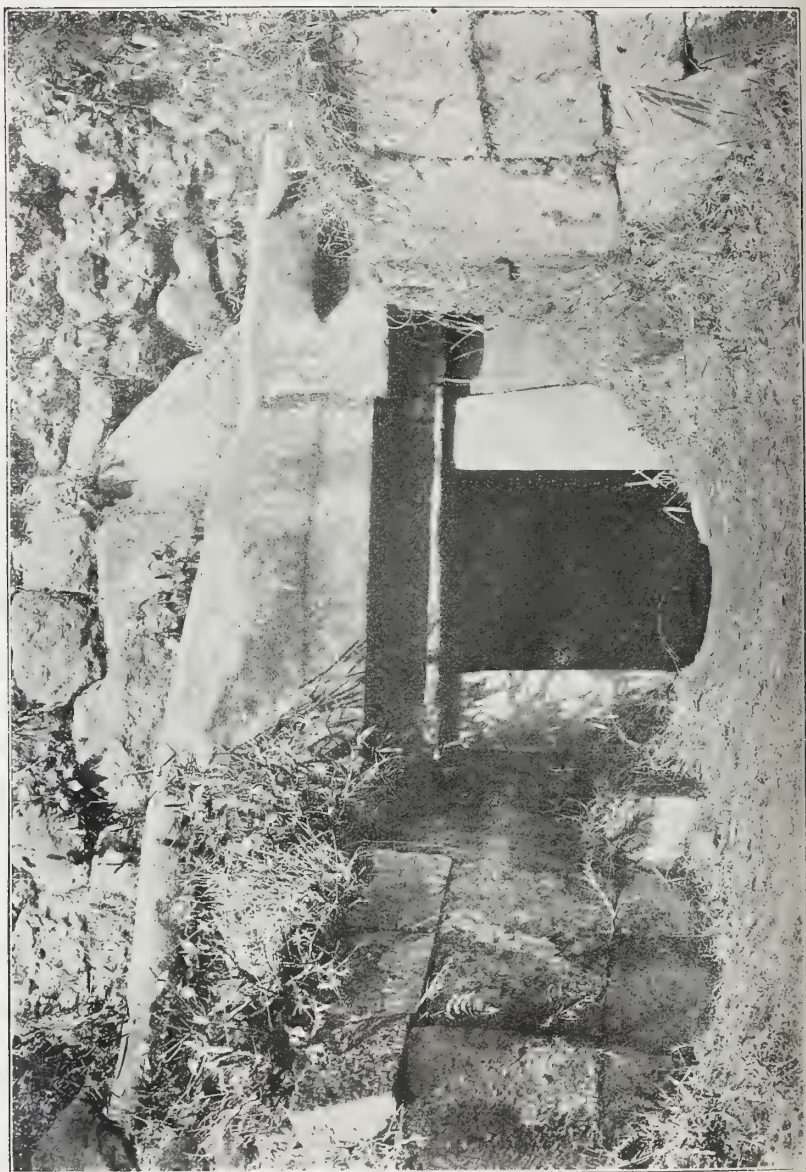


DOLMEN
AT SHIMA-NO-SHO,
YAMATO PROVINCE.



UNROOFED DOLMEN
NEAR KOKUBUN VILLAGE,
KAWACHI PROVINCE.

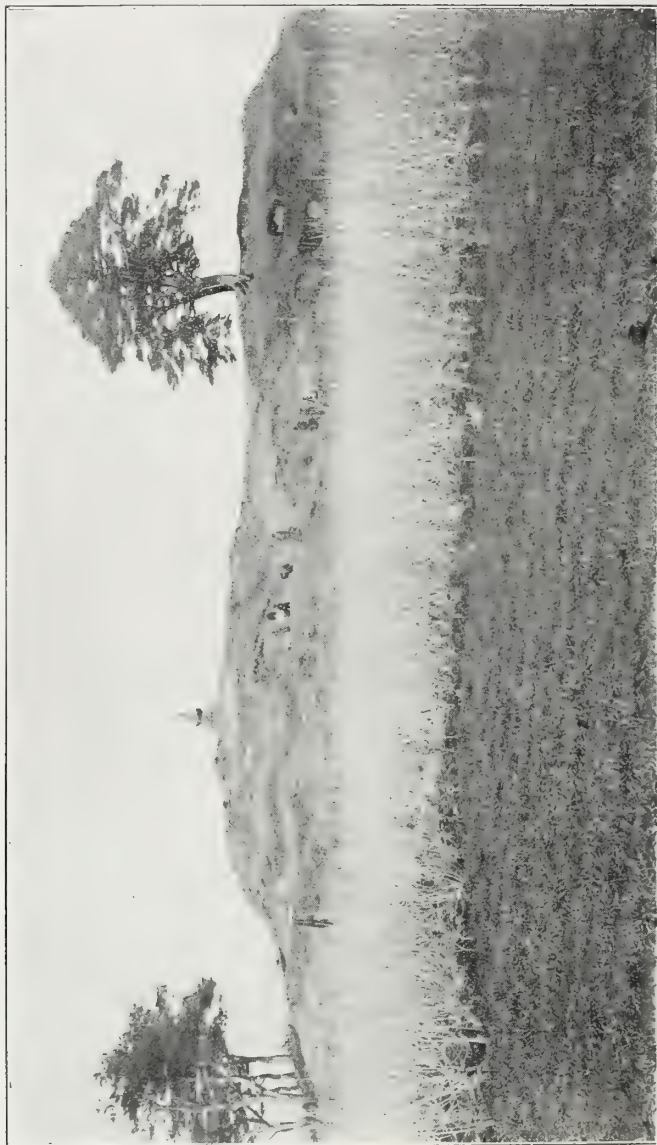
Fig. 208.





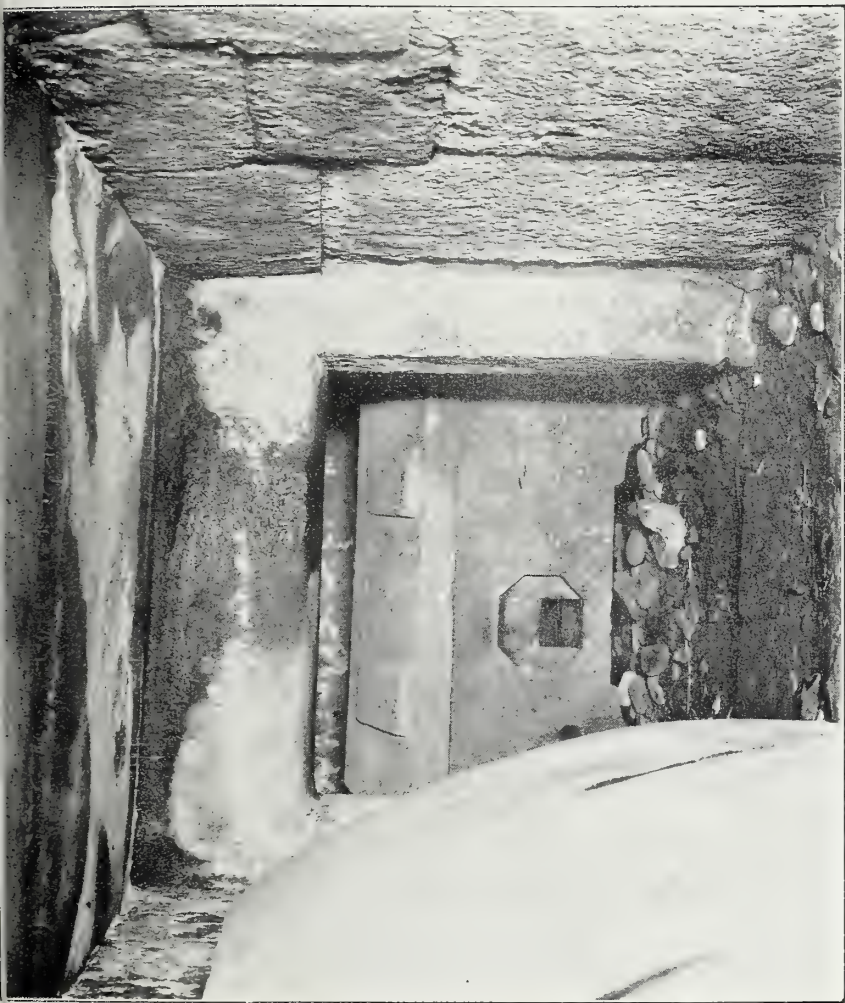
INTERIOR OF STONE BURIAL CHAMBER, LATER DOLMEN TYPE.
PROVINCE OF KOTSUKE.

Fig. 210.



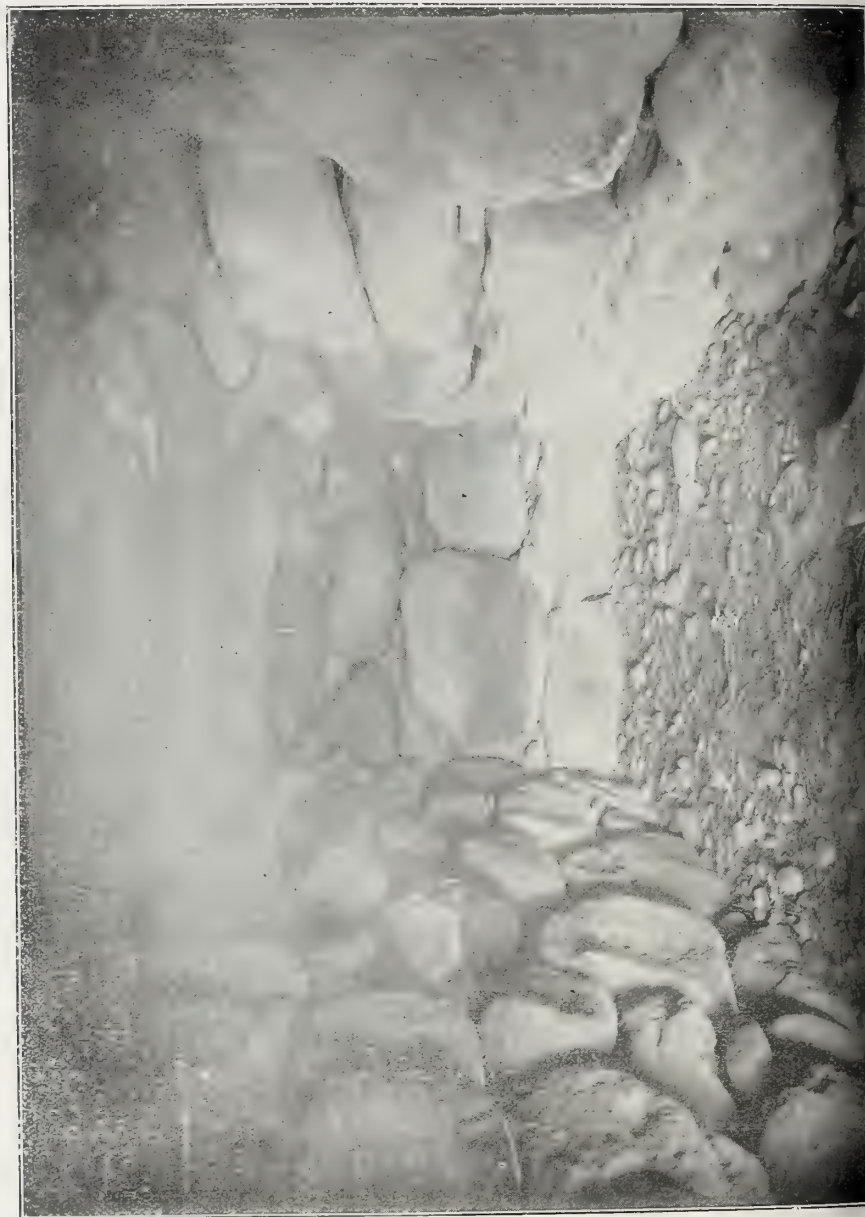
COMPOUND MOUND WITH TWO DOLMENS.

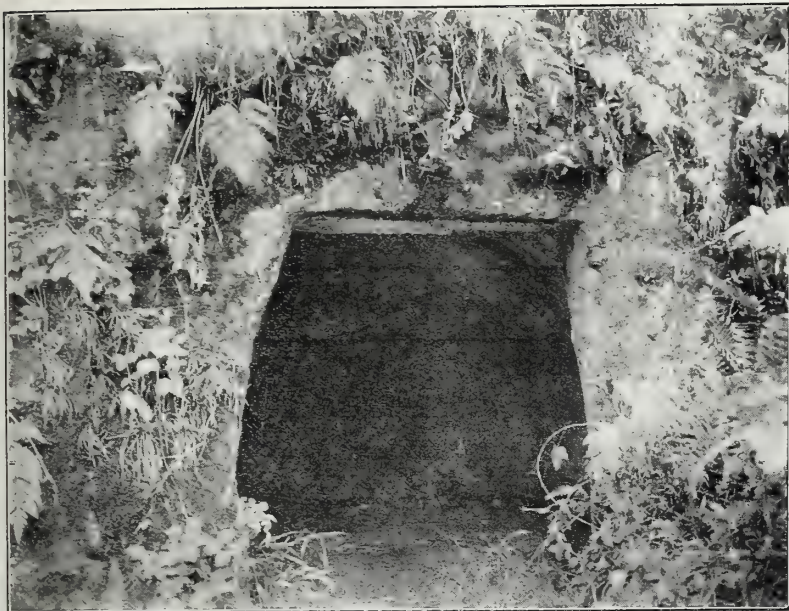
(One to the right of the large tree, the other to the right of the monument.)
PROVINCE OF KOTSUKE.



INTERIOR OF DOLMEN, LATER TYPE.
PROVINCE OF KOTSUKE.

Fig. 212.





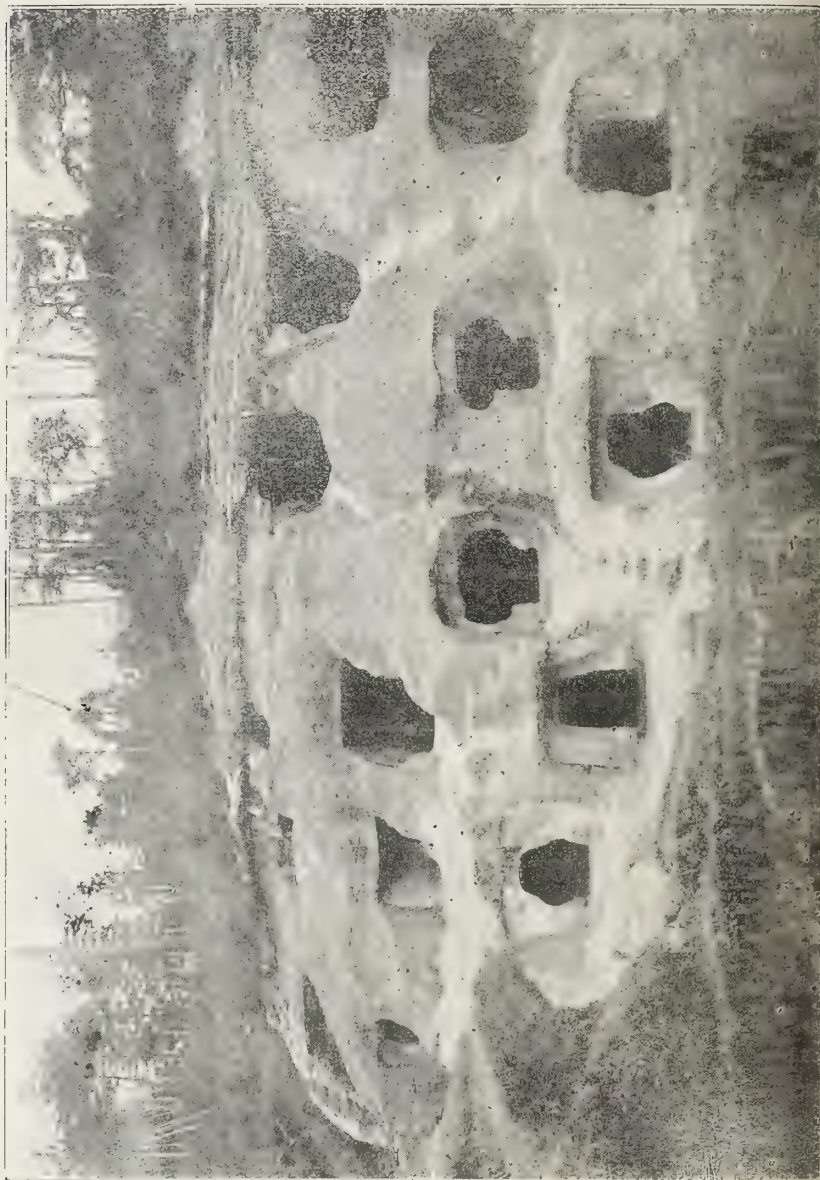
ENTRANCE TO BURIAL CAVE.
PROVINCE OF SAGAMI.

Fig. 214.



INTERIOR OF SAME BURIAL CAVE.
(House Design)
PROVINCE OF SAGAMI.

Fig. 215.



Kojiki a distinction seems to be drawn between the "savage deities" and the "unsubmissive people." Michi no Ōmi no Mikoto is said to have dug a Muro at Osaka (in Yamato) and to have prepared a banquet therein, at which his guests, "tipsy with sake" were treacherously slain. Yamato-dake, disguised as a maiden visited the *Muro* of the Brave of Kahakami. A house warming for a new *Muro* is graced by the Heir apparent in the latter part of the 5th century and an "Imperial *Muro* building" is referred to as late as the reign of the Emperor Temmu, A. D. 673-86.*

The Yamato treasures of metal, stone and pottery which delight the Japanese connoisseur, have been taken, for the most part, from the ancient tombs. These are not the less interesting because limited in variety and stamped with the uniformity of sepulchral custom. If the tombs have exercised selection in the choice of relics, the latter have borne witness to the antiquity of the tombs and the culture status of their makers.

In the map (Appendix A) I have attempted to give a general notion of the distribution of the Yamato sepulchres throughout Japan. As the published list does not always state the character of the tomb, I decided after several trials not to attempt any graphic distinction, but to call attention to special features when necessary. It was impossible to place a separate mark for each place without disfiguring the map and to attempt to indicate the great number of sites (which are

* Aston's Translation. Vol 1. p.p. 123, 201, 379, Vol 2. p. 375.

frequently not enumerated in the list) was out of the question. I decided therefore to take the total number of places in each province and to divide it by 10, by which means a rough idea of the prevalence is attainable. Some endeavour has been made to locate the principal positions of sites according to the districts occupied, but this cannot be more than a relative indication. In Chapter 13 the distribution of these tombs in relation to the primitive sites is discussed in some detail, with the object of demonstrating the contact between the two cultures.

Some of the tombs belong to the dawn of Japanese history and might be designated Protohistoric rather than Prehistoric. A few dolmens were erected after the historic period, when the *Kojiki* and *Nihongi* appeared. The art of writing was known in Korea about A.D. 370 and in Japan about A.D. 400.* Previous to that time the history of Japan is legendary and for three centuries later it is not free from mythical and traditional incongruities. The *Kiujiki*, which is stated to have preceded the *Kojiki*, is reputed to have been destroyed by fire in A.D. 645. The *Kojiki* was projected in the reign of the Emperor Temmu (A.D. 673-86) who seems to have been an enlightened monarch, but as stated on page 81, it was not published till A.D. 712. The imperial edict expresses the desire "to have the chronicles of the Emperors selected and recorded, and the old words examined and ascertained, falsehoods being erased and the

* It was probably known to a few before this date.

truth determined in order to transmit to after ages.”* It is not improbable that the *Katari-be*, or court reciters, had previously handed on oral tradition from one reign to another. Though admitting that the historical period might have begun somewhat earlier, it will be safer to date it from the period of Wado, in the beginning of the 8th century, the period which ushered in the first coinage of Japan and witnessed the transference from barbarism to civilization.

The contents of the later tombs do not differ materially from those of the earlier; in their type, the relics of the later tombs present a singular resemblance to those which are recognised as prehistoric. As comparatively few of these relics, or the tombs from which they have been removed, can be located in the historic era, I have included all archaic sepulchres and their contents in the category of prehistoric vestiges, although some caves and mounds probably long outlasted that stage.

To arrange the various kinds of sepulchres in use by the Yamato is not a difficult matter if we bear in mind that the classes under which they are grouped do not express all features which they present. There are many transitional forms between the dolmen and cist, between the latter and the coffin or even cave, and between the mound and the cairn. Although the dolmen has probably always been covered by a mound, the latter may contain instead of a dolmen, a sarcophagus, a cist, a wooden coffin

* Preface of Yasumaro to the *Kojiki*: Chamberlain's Translation, p. 9.

or even no human interment at all. The latter are called *Kyo-tsuka*,* or scripture mounds and do not antedate the establishment of Buddhism about the middle of the 6th century; the custom indeed, appears to have been somewhat more recent.

For the purpose of description I shall distinguish the sepulchral chamber from its setting. The chamber comprises:—

1. The coffin, sarcophagus and cist.
2. The dolmen and stone room.
3. Transitions between cist and dolmen.
4. The cave.

The setting includes:—

1. Earthen mounds (tumuli, barrows).
2. Cairns or cobble mounds.
3. Mixed mounds.
4. Graves.

The coffin, or sarcophagus is a chamber of wood, stone or clay, the dimensions of which do not greatly exceed those of the object or objects for which it is designed. It is distinguished from the cist chiefly by its construction and often by its slightly less size. A very early type of wooden coffin is that hollowed out from the trunk of a tree. The Mahan of Korea are said to have interred skeletons, if not the recently dead, in such chambers. A coffin of this type was found at Akita

* The *Kyo* are the sacred or canonical books, especially of the Buddhists. (Brinkley's Japanese-English Dictionary). It was sometimes the custom, following a death, to erect one of these tumuli each year for 13 years: hence the expression *Jiu San Tsuka*, or Thirteen Mounds. To this category also belong the historical "Fude tsuka," or mounds where worn out pens are respectfully buried to solicit perfection in the art of caligraphy.

during the period of Kaei (A.D. 1736-40) and has been reported by Y. Hashiba.* It consisted of the segment of a tree trunk, divided longitudinally, each half being hollowed out and adjusted to form a receptacle.† It was discovered in a mound, about 4-5 feet underground. A stone coffin with a curious engraved border and of identical shape is said to be kept in the Temple of Anpukuji in the province of Kawachi.

If we consider the time that has intervened between the Yamato burials and the present, it is not surprising that coffins of a perishable material like wood are very rarely to be found. A few more or less disintegrated ones, however, have been reported, among which I may mention the discovery by Prof. Gowland of the remains of a wooden coffin in a dolmen at Shiba village in the province of Kawachi.‡ The boards were about $2\frac{1}{2}$ in. in thickness.

Sarcophagi of stone are the most numerous. Though of less ancient origin than the cist and perhaps more recent than the wooden coffin, the stone sarcophagus has outlasted both, and outnumbers those of terra cotta because it is stronger and because its manufacture extended throughout a lengthier period. In tombs which have long been emptied of their contents, the stone sarcophagus, from its resistant and massive material has often escaped destruction.

* T. J. Z. No. 180.

† This form of coffin was used in Russia at the time of Peter the Great.

‡ The "Dolmens and Burial Mounds of Japan," pp. 36.-9. Communicated to the Society of Antiquaries of London, 1897.

Three illustrations are given, Figs. 200, 201 and 202. The first occupied the end room of a two-chambered dolmen, Fig. 211, at the village of Sojamaichi in the province of Kotsuke. It was situated near the inner entrance, but with a wide angle lens a full length photograph was taken. The total outside length of this sarcophagus is 7 ft. 1 in., from which at least 12 inches must be deducted, leaving an inside length of 6 ft. or perhaps rather less. The height to the top of the cover is 4 ft. 7 in. and the external width is 3 ft. 9 in. The cover is shaped like the roof of a house. The projections may represent openings for the escape of smoke ; such are still to be seen on the roofs of kitchens and houses of the peasantry. In one of the ancient rituals* on behalf of the building of an imperial palace, prayers were offered against the "calamity" of birds entering through the smoke holes, thus defiling the food. An octagonal recess in front surrounds an opening of 8 in. square. A piece of stone, seen in front, served as the door. The circular depression at the side of the doorway does not penetrate the wall. In the outer chamber, Fig. 211, is seen the lid of a large sarcophagus. As the dolmen had formerly been opened from its entrance, though afterwards closed, it is not unlikely that another sarcophagus occupied the outer chamber. The lid measures 9 ft. 5 in. by 4 ft. 10 in., is 8 in. thick, and is curved in section.

Fig. 201 shows another sarcophagus from a dolmen in the same neighbourhood. The length is 7 ft. 4 in., the extreme height 4 ft. 9 in., the

* "Japan, Her History, Arts and Literature," by Captain Brinkley, vol. 5, p. 117.

breadth 3 ft. 10 in. and the inside width 2 ft. 10 in. The hole in the upper part might possibly have been intended as an exit for the ghost, but is probably of later origin, with the object of rifling the contents.

Fig. 202 represents an interesting, though much disintegrated, specimen of what is locally called a "stone boat." It was taken from a non-dolmen double mound in the vicinity of Kamisato village in the province of Kotsuke and is now situated in the grounds of the Sai Koji temple which was erected in or about the second year of Ōei, A.D. 1395. This sarcophagus is said to have been disinterred in the 4th year of Tenwa, A.D. 1684, but whether the temple record is correct I cannot say. It seems to have been originally a copy of a tree coffin but is slightly narrower at one end than the other and might possibly have been intended for a boat. The old custom of sending imitation boats adrift at the festival of the dead, might have some bearing on the form of this sarcophagus. The projections seen on the sides are sometimes found on the clay sarcophagi: they were probably of use in fixing it to the carrying poles. The length is 8 ft. 11 in., the width in the middle is 3 ft. 9 in., the height of the receptacle is 2 ft. 5 in. and of the lid, 2 ft. 2 in.

One or two stone sarcophagi have been sculptured out so as to partly fit the body of the deceased.* Sometimes two, or even three sarcophagi are present in the same dolmen chamber.

There are three varieties of cist in Japan, viz :—

* T. J. Z. No. 66.

1. Excavated in rock, with a single cover, or one of several slabs; this is uncommon.
2. Made of stone slabs, with or without a bottom of flat stones, cobbles, or beaten clay.
3. Made of cobbles or small boulders.

J. Shibata has reported the existence of a cist excavated from a soft sandy rock at Hiromi village in the province of Mino.* It is 18 ft. long, 3 ft. wide and a trifle over 2 ft. in depth. Sometimes such cist excavations are found in caves. Occasionally they are excavated from above the level of the floor and may be partly detached and provided with a lid. Cists made of stone slabs are distinguished from dolmens by their lesser size and by the absence of an entrance portal, but the latter is not an absolute criterion. As a rule the shape is oblong but sometimes square, or nearly so. Cists have been found in pairs with a central partition. At Shōno village in the province of Sanuki, 7 cists were found by R. Torii, arranged in a circle around a central one of slightly larger dimensions, the whole interment being covered by a mound.† Small chambers made of natural cobbles or boulders, imperfectly adjusted, and kept in place by the pressure of surrounding soil or an upper slab of stone, are occasionally encountered. These chambers are rectangular or oval. The latter form, also found in the dolmen, cave and sarcophagus of clay,

* T. J. Z. No. 202.

† Ibid. No. 63.

suggests the pie-shaped cists of Chaldea and Halstatt.

Sarcophagi of clay originated at a later date than those of stone, though the idea may have come from jar burial. They were extensively used in Egypt and Chaldea. I have already mentioned the occurrence of burial jars with end-to-end apposition in the province of Chikugo. S. Wada has described a sepulchral jar 4 ft high and reported his discovery of numerous jars, containing human remains at Akasaka, Tokyo.* The latter, however, belong to the historic era. He tells me that he has lately discovered some cinerary jars in the province of Shimosa; the mouth of each was covered by a wider but shorter jar of the same nature. Jars containing human bones have been found at Katsumada, province of Mimasaku, and elsewhere, but are of rare occurrence. In the later dolmens, mounds and caves, jars containing cremated remains have occasionally been met with.

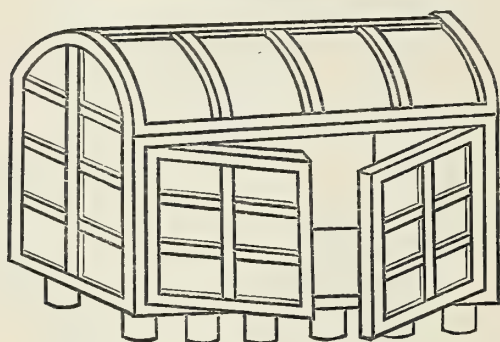
With regard to material,† S. Wada divides the clay coffin into two varieties, namely, thick, unglazed earthenware and thinner Korean ware with spiral pattern inside or outside. The form may be oblong or elongated oval and the cover is arched or angular, like the roof of a house, Figs. 203 and 204. Occasionally it is truncated. The clay sarcophagi are frequently panelled, sometimes decorated in low re-

* K. K. Vol. I. No. 3. It is possible that the "sacred jars" which, according to the Kojiki, were set "at the front of the river Hi, in Harima, were burial jars, though more likely intended as libation offerings to the river.

† Ibid. Vol. I. No. 4.

lief, and are usually provided with short legs, arranged in two or three rows. They are fashioned in one piece or in sections. They are mostly found in the provinces of Mimasaku and Bizen. From the

Fig. 216.



former a unique instance, provided with doors moving on hinges, has been reported by S. Mitsui,* Fig. 216. According to S. Wada, a single clay sarcophagus is usually found in one

dolmen chamber, but two have been discovered in the same room. He further states that the clay sarcophagus is often interred in the soil of a mound or the top or side of a hill.

The subject of Japanese dolmens has been carefully treated by Prof. Gowland in the important monograph previously referred to. Although much information has recently accumulated, owing to the industry of Japanese investigators, no comparative study has been seriously attempted. The dolmen in its restricted sense, namely, a rude

* K. K. Vol. 2, No. 4. This figure was drawn by S. Mitsui from a verbal description, though corrected and approved by the narrator. Unfortunately the sarcophagus was broken and no verification of details has yet occurred. It is stated to have been contained in a dolmen at the village of Ōno, in the valley of the Yoshii River, province of Mimasaku.

structure consisting of a single roof stone supported by massive boulders or vertical megaliths, Figs. 205 and 206, is not commonly found. It may be questioned, however, whether this type has any claim to priority, or whether it is not rather the product of a special environment. Although there are, especially in Europe, instances of the transportation of immense blocks of stone from considerable distances, the difficulty of carriage must everywhere have exercised great influence in the choice of material, and consequently of form, in an age when the manipulation of stone was usually confined to the roughest kind of hewing. We may presume that in most cases, the type of dolmen was either dependent on the local supply, or if carried from a distance, on rock hewn to transportable size, which in either case would militate against any attempt to base their antiquity upon form and construction. When we see in the north of the Kwanto, dolmens of most primitive construction, existing side by side with stone chambers of highly finished masonry, under circumstances which suggest contemporaneous construction, we may be assured that the type furnishes little or no criterion as to age. While highly finished dolmens are presumably of late construction, those of crude workmanship may belong to any stage of the dolmen period, though in the Kwanto they cannot well antedate the Christian era. In Chapter 13, some points bearing on the antiquity of the tombs will receive consideration.

I have included under the "dolmen" all stone chambers with megalithic roofs and portals and

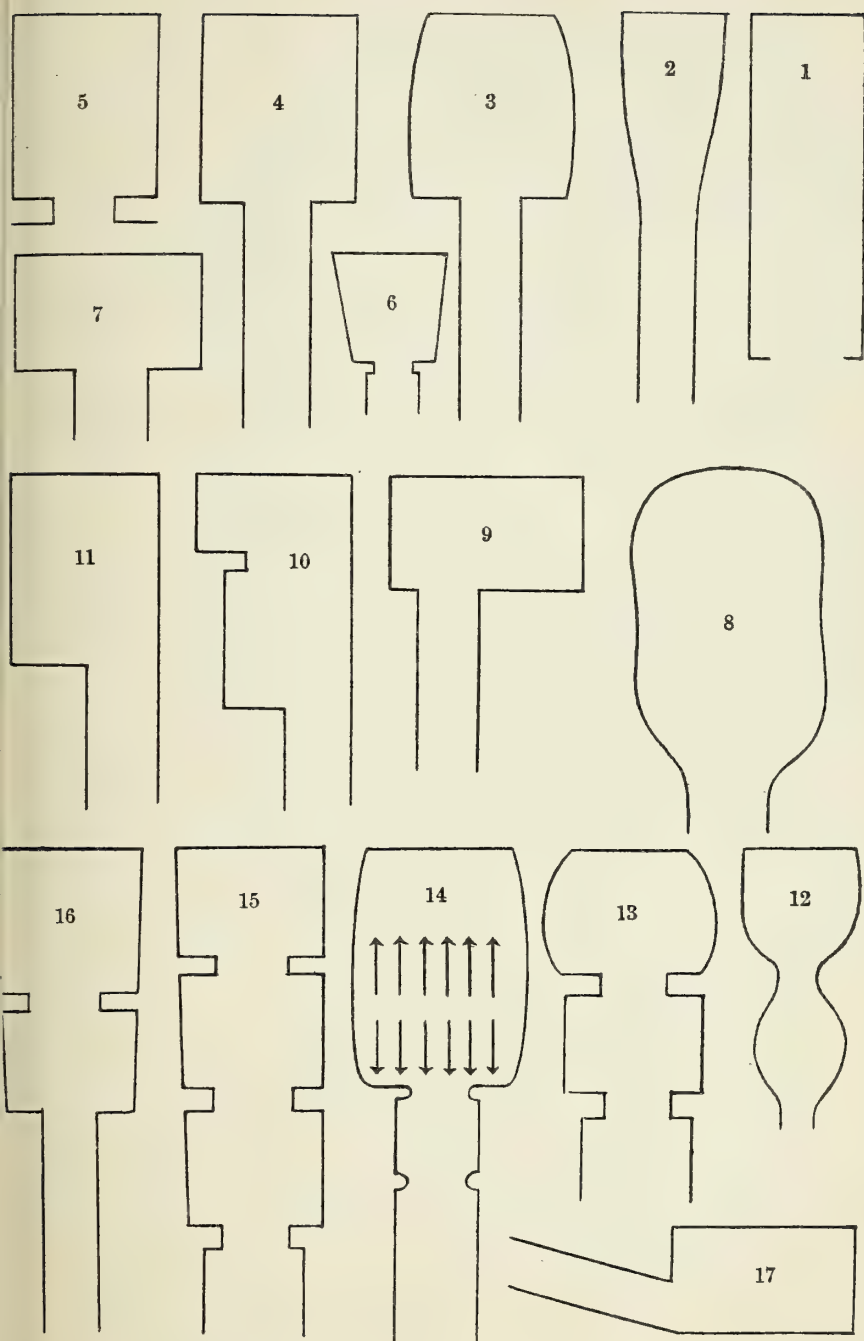
have placed among transitional forms the large cists of lesser dolmen dimensions. It will be understood that amid the great variety of sepulchral chambers built of stone, neither size or construction, taken singly, furnish reliable guides to classification. Some of the dolmens are of quite insignificant size. There can be little hesitation, however, in classifying the stone chamber of finished masonry along with the dolmen. Here the roof is generally megalithic and the portal usually likewise. The roof is, with rare exceptions, flat and always without any central support, so that the stones must be large enough to reach across from one wall to the other. With regard to form the dolmen may consist of:—

1. A simple chamber or gallery.
2. A chamber with gallery.
3. A series of chambers with gallery.

The simple chamber or gallery, as it may be called according to its length, Fig. 217, Nos. 1, 2, and 5, is usually of the latter type and is nearly always oblong when built of undressed stone. The elongated form appears to be the most primitive and gives the greatest capacity with the shortest reach of roofing stones. Later chambers of megalithic structure, with masonry squarely adjusted and finished on the inner surface, are sometimes of equal dimensions, or nearly so.

The chamber with gallery is of a more advanced TYPE, though carrying no evidence as to AGE. The gallery may be central or unilateral, Nos. 3, 4, 6, 7, 9, 10 and 11. It has been supposed that the unilateral type is more primitive than the other, but

Fig. 217.



OUTLINE FORMS OF DOLMENS (mainly from the T. J. Z.)

I see no reason why it should be so. No. 2 illustrates the passing of a simple chamber into one with a gallery, while No. 10 shows the beginning of a double chamber, an advanced feature, associated with the unilateral type of corridor. The central gallery is by far the most common in Japan. Occasionally the chamber is at a right angle to the gallery, No. 19. K. Takahashi* has reported an instance of a unilateral gallery, No. 17, placed at an angle to the alignment of the tomb, apparently with the object of securing a special orientation for the entrance after the tomb was partly constructed.

The dolmen sometimes consists of two, and rarely of three or four chambers. Nos. 12 to 16 exhibit two and three chambers, the antechamber in No. 14 being merely a constriction in the gallery. The ceiling of the gallery is almost always lower than that of the chamber and the inner chamber is often higher than the outer. It seems to have been the place of honour, reserved for the chief interment.

The occasional existence of a shelf on the back wall is a structural feature of some interest, Figs. 222-4. It is more often found in the burial caves in the form of an alcove excavated two or three feet above the floor. This was perhaps intended for offerings, possibly copied from the domestic altar, still extant as the *Kami-dana* or God-shelf. It is possible that the *Toko-no-ma* or recess found in all Japanese houses, and now mainly devoted to the presentment of pictures, inscriptions and foliage or flowers in vases, was originally the seat of the

* T. J. Z. No. 158.

household altar. It is still the place of honour, to be seated in front of which is a mark of consideration. Prof. Gowland noticed at Rokuya in the province of Tamba, several dolmens with shelves, one of which deserves special mention on account of the cist-like space below the projecting shelf, which contained human bones and personal ornaments.

The walls of the dolmen chamber are usually inclined together at the top, so that the ceiling is a trifle smaller than the floor. This peculiarity obtains even where the masonry is highly finished and, like the oblong form, was a contrivance to secure the greatest space consistent with the size of the roof stones. Resistance to pressure of the superincumbent soil may also have entered into the calculations of the builders.

A few words may be said about the dolmen entrance, Fig. 218. This is never arched, but the jambs are usually inclined, the breadth at the floor being somewhat greater than that under the lintel. The latter is frequently megalithic. In Fig. 208, which, however, is exceptional, the surface exposed is 13 ft. in length. The *Torii* or gateway erected in front of the Shinto shrines are often inclined in the same manner. The word is commonly believed to come from *Tori-wi* meaning a bird's dwelling but the resemblance to the Indian *Turan* or *Tori* led Ferguson, Aston, Prof. Chamberlain and myself, independently to the conclusion that this form of gateway is a survival from central or western Asia. Prof. Chamberlain in an interesting article,* points

* Things Japanese p. 478.

Fig. 218.



out that in the Luchus the word is *Turi* and he mentions the existence of similar structures in Korea. Ferguson also noted the resemblance between the *Torii* of Japan and the *P'ai-lou* of China which, he stated, was originally attached to a tomb. Though the word *P'ai-lou* as at present written does not prove this connection, there is in select use a word *Pai-lou*, meaning to worship at the ancestral tomb,

The Japanese word *Torii* is connected with *Toru*, to pass through.*

A brief description of three different kinds of dolmen, all of which are in the same vicinity near Maebashi, in the province of Kotsuke, may interest archaeologists. In this neighbourhood there are many dolmen and other mounds, an indication that it was a centre of some influence.

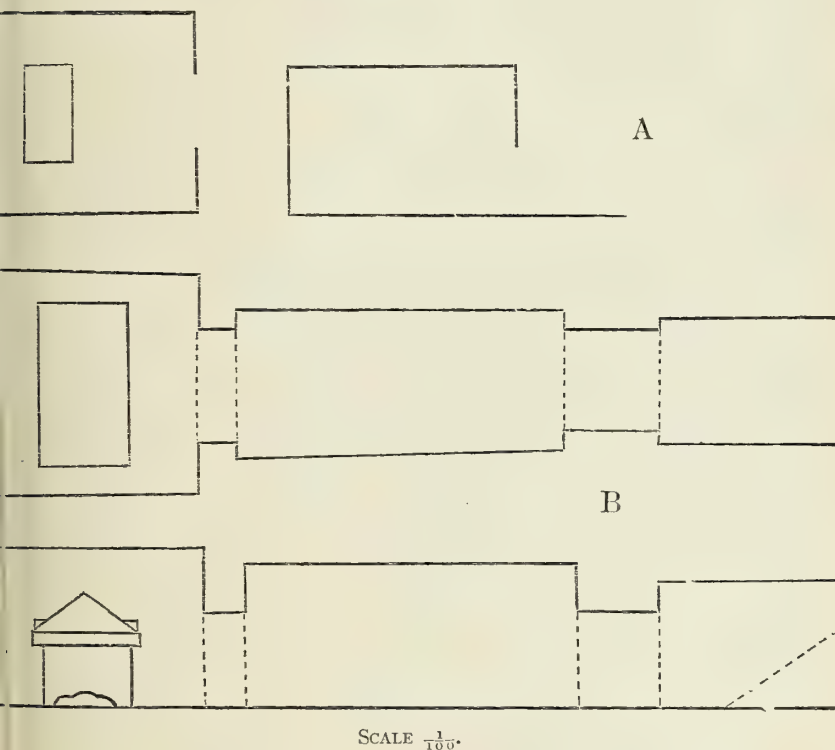
Figs. 208 and 209 show the entrance and interior of a megalithic room in a mound at Sojamachi. The side walls, back and ceiling are each formed of a single stone. The interior is carefully dressed and smoothed. The jambs and lintel are likewise each of one stone. The inside height, Fig. 219 A, is 6 ft., length 9 ft. 2 in.; the ceiling at the entrance is 8 ft. 3 in. broad and 8 ft. 1 in. at the back. The exposed length of the lintel is 13 ft., its greatest depth is 2 ft. 10 in. The jambs are 4 ft. in height and the breadth of the entrance is 2 ft. 9 in. under the lintel and 2 inches more at the floor. Sometimes there is a difference of 6 in. between the width of the top and bottom. The orientation is S. W. by S. A circular patch, probably representing the sun, has been done in red colour on the back wall, most likely within historic times. Some defaced Chinese characters are also comparatively recent. An oblong stone, 4 ft. 2 in. by 2 ft. and 1 ft. 5 in., is situated near the back wall. There is no gallery.

In an adjacent mound there is a large dolmen of well finished and smoothed stone with two chambers,

* The serial arrangement of the *Torii* of the Inari and some of the Benton shrines in the form of a covered way may be noted in this connection.

which appear to have been cemented, and a gallery. The latter had been opened and then sealed, but I obtained entrance through an opening about 2 ft. by little over 1 ft. in the gallery on the side of the mound,

Fig. 219.



rather a limited ingress. Once inside however, there was room enough, and two flashlight photographs were taken, Figs. 211 and 200. The length of the gallery, Fig. 219, B from the point of entrance to the portal of the first chamber is 9 ft. 10 in. but it must have been about 8 ft. longer: its width is 4 ft.

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9 in., and the height 5 ft. 5 in. The length of the outer chamber is 13 ft. 9 in., extreme width 6 ft. 5 in., height 6 ft. 1 in. A heavy lintel separates the outer from the inner chamber, which is 9 ft. 9 in. in length, 9 ft. 6 in. wide and 6 ft. 9 in. in height. This chamber contained the sarcophagus already mentioned (Fig. 200) and probably the outer one formerly held another. The orientation is 10 deg. W of S. The mound in which it is situated is 160 by 170 ft. and the height, on a rough estimate, is about 40 ft. On the left wall of the gallery I observed the rude representation of a human face which is perhaps of a later age.

Within a mile from this spot there is a large dolmen of rough megalithic structure containing a sarcophagus, Fig 201, and in the immediate vicinity a compound mound with two megalithic dolmens, Fig. 210, a rare circumstance.* This mound is 316 ft. in length and 194 ft. in width. The height appears to be about 35 ft. The gallery of Fig. 212, is 10 ft. 3 in. long, average width 5 ft., height 3 ft. 9 in. The orientation is SW by S. The main chamber is 14 ft. 9 in. in length, width on the floor is 7 ft. 2 in., at the ceiling 5 ft. 5 in.; height at the back wall is 6 ft. 7 in. and in the middle of the chamber, 9 ft. 11 in. In the dolmens of this locality there was a considerable difference, (from 1 to 2 ft.) between the width of the ceiling and the floor. As previously stated, some difference is the rule in Japanese dolmens. The roof is composed of 4 megaliths flattened

* One or two others have been recorded, e.g., a platform mound in Yamashiro with 2 dolmens in the conical portion. T. J. Z. No. 200.

on the inner surface and the walls are of undressed stone. In the other dolmen of this mound, Fig. 218, the roof stones were simply huge boulders without any attempt at trimming the inner surface. One of them reached to within 2 ft. 5 in. and another to 4 ft. 10 in. of the floor.

Fig. 220.

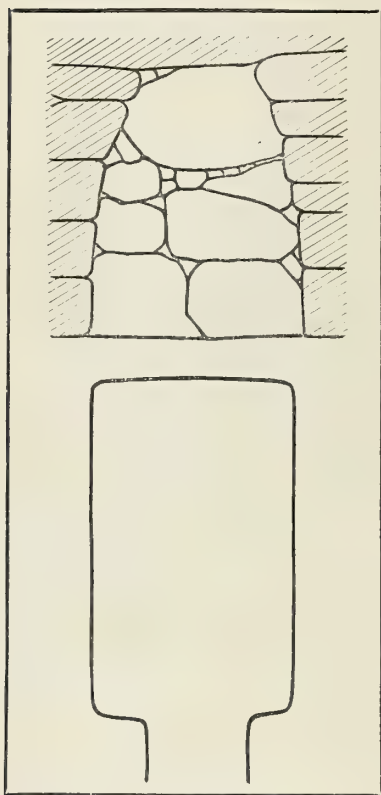


SKETCH OF DOLMEN MOUND.

K. Takahashi has kindly given me a sketch of an interesting dolmen at Ochioka village, province of Yamato. Figs. 220 and 221. The chamber is no less than 15 ft. high, width at the ceiling, 6 ft. and at the floor almost exactly 12 ft. (11 *shaku* 8 *sun*), so that the latter is nearly twice the width of the former. The chamber is 20 ft. long. The vertical section approaches the bee-hive form which is rare in Japan. The height was probably considered

necessary to ensure stability by graduating the overlapping of the stones.

Fig. 221.



ROUGH PLAN AND ELEVATION.

Although no instance is known of vertical stones being used as pillars to support the centre of the roof, N. Ōno has recently encountered three dolmens at Wasa village in the province of Kii which are each provided with horizontal beams of stone. I understand that it is his intention to describe these in the *Anthropological Magazine*, November, 1907, but I have obtained from him the rough plans shown in Figs. 222, 223 and 224, with permission to insert them in this work. In more than one respect these sepulchral chambers must be con-

sidered the most extraordinary in Japan and perhaps, on account of their construction, the most remarkable throughout the whole world. In Fig. 222 we see that the ceiling reaches a height of 18 ft. with a full length of only 13 ft. and a breadth of from 7 to 10 ft. Across the width of the chamber are 8 hori-

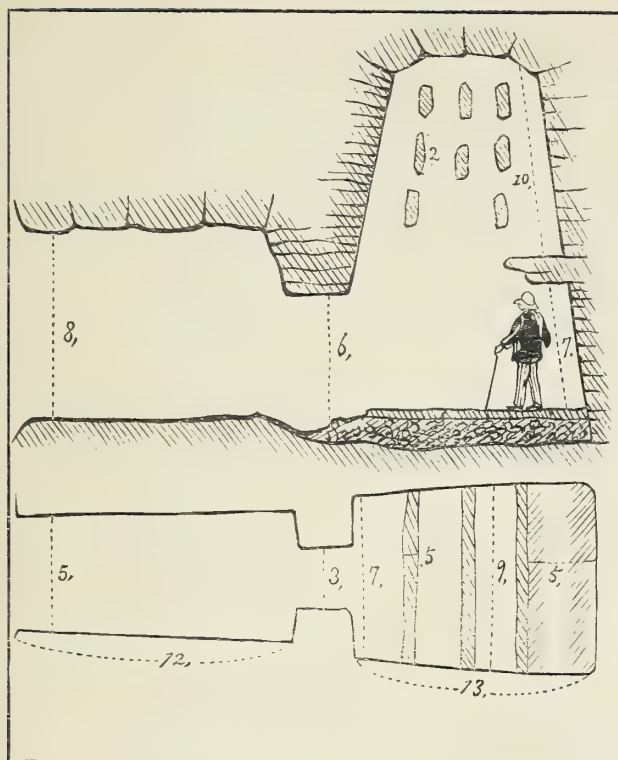
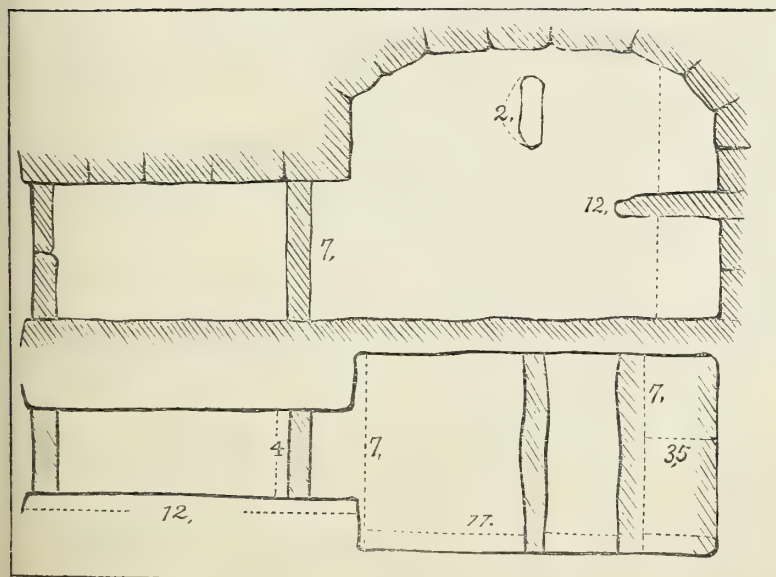
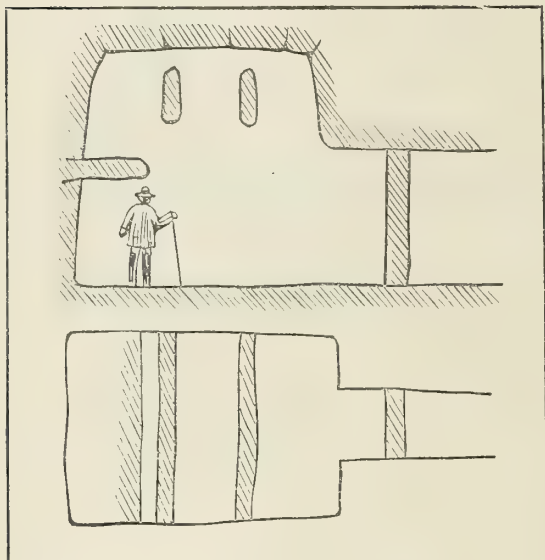


Fig. 223.



zontal beams of stone beginning at a height of about 9 ft. and placed with the evident intention of pre-

Fig. 224.

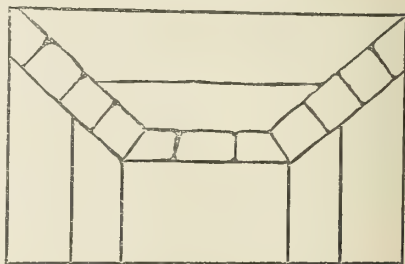


venting collapse of the walls. The walls converge very decidedly towards the ceiling which appears to be somewhat arched. This is a very exceptional occurrence in Japan. Each of the three dolmens is

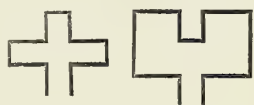
provided with a shelf at a height of about 7 ft. In Figs. 223 and 224 entrance had to be effected through openings in the posterior walls as the galleries were closed by slabs of stone, two of which are seen in Fig. 223. The tendency to the arch formation of the roof is also ap-

parent in the case of this chamber. Another interesting dolmen has been described to me by K.

Fig. 225.



Takahashi. This chamber, at the village of Koshi in Yamato, consists of finely finished megalithic walls and ceiling, the back wall is formed of one stone. In order, I suppose, to give the greatest breadth consistent with the material, a kind of cornice has been made of stones projecting into the chamber at the junction of the ceiling and walls. Fig. 225, which I have taken from a rough plan and description furnished by the above investigator, gives an idea of this unusual condition. In the case of another dolmen in the same neighbourhood a similar cornice was employed but the wall stones were cut into small blocks as regular as bricks and adjusted with perfect accuracy. The ceiling, naturally consisted of cyclopean slabs. The manner in which abutting joints were sometimes finished in the case of lintels and other parts of the later types of dolmen chambers, shows that the Yamato masons were capable of erecting edifices of stone, and creates a feeling of surprise that no monarch had attempted to build a palace of less ephemeral nature than the wooden structures which served for prince and peasant till the present period of Meiji. Earthquakes doubtless had a deterrent influence. Among a few very rare shapes of dolmen not given in Fig. 217 may be mentioned the cross and key forms.



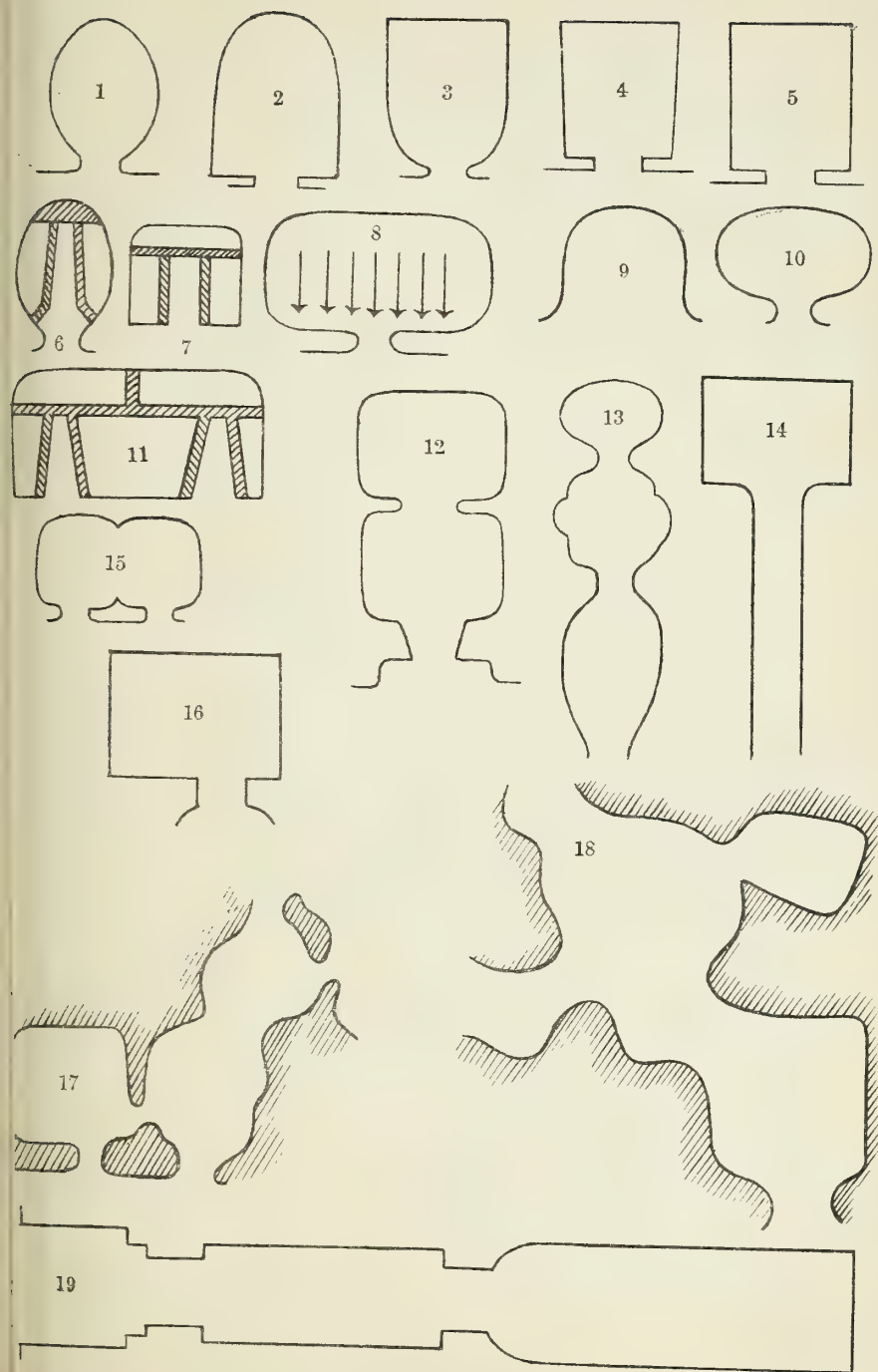
Transitional kinds between the dolmen and the cist have been reported, but need not detain us here. Some dolmens which I visited in Chikuzen five years ago are, with the exception of the entrance, scarcely to be distinguished from large cists. They were

made of river boulders, and the roof stones being of small dimensions the walls approached in beehive fashion, meeting the latter at a height of from 10 to 12 feet. B. Yoshida* has reported a cist at the village of Itabashi in the province of Hitachi, where an antechamber communicated with the main chamber, after the fashion of a dolmen.

The burial cave of the Yamato is generally a single chamber of oblong form, with a vaulted or flattened ceiling. I have seen some lined with plaster or cement, but these are not common. There are many forms, of which some are given in Fig. 226. Sometimes, as above stated, a recess or alcove is excavated in the back wall, No. 6. In this and also in Nos. 7 and 11 are also low partitions, which may have served to confine separate interments. Occasionally the cave has a double entrance, or a double chamber, or both. Forms like Nos. 12 and 13 and 14 are apparently copied from the dolmen, but not certainly so. No. 19 is a Chinese burial cave found in the Yangtze valley by R. Torii. Its contour resembles not only that of some Yamato dolmens, but those of the pyramid and cave chambers of Egypt. It is not impossible that the later form of Yamato dolmen was taken from that of the cave. Sometimes the caves are irregular, Nos. 17 and 18, but in some cases at least these have been the work of a later age. The caves are excavated in unresisting rock, such as boulder clay and soft sandstone, and sometimes in the red clay. The latter are all small and were probably the tombs of persons of inferior station. Some of these

* T. J. Z. No. 212.

Fig. 226.



OUTLINES OF CAVES.
(Mainly from the T. J. Z.)

are perhaps even subsequent to the Wado period. Cave burial outlasted that in dolmens and larger mounds. It is important to note that a certain proportion of caves have been made in recent times for store-houses. In certain places, the caves have intercommunicating holes which may point to their having been the abodes of vagabonds and outlaws in later times. Both dolmens and caves are occasionally resorted to by beggars and especially by lepers. Prof. Tsuboi has suggested that some of the Japanese caves were originally intended for dwellings, but there is no valid evidence of this. At Hoya, in the province of Uzen, Y. Hashiba* found 26 caves with vertical, and 1 with slanting vent-holes, resembling chimneys. These caves were about 13 ft. long, $4\frac{1}{2}$ ft. wide and 4 ft. high, so that residence is practically out of the question. There was no trace of fire in the caves. A similar device was employed in ancient Egypt to enable relatives to converse with, and perhaps to administer sustenance to, the departed.

Among a large number of caves at Ōiso, there is one, originally reported by N. Yamazaki, which is modelled after the interior of a house, and which I measured and photographed, Figs. 213 and 214. The ceiling slants upwards on each side to about 6 in. from the middle line, where a flat surface about 1 ft. in breadth extends from the back wall to the entrance. The walls are perforated with small holes, which, judging by their disposition, might have been for pegs to attach matting or cloth, or to suspend the paraphernalia invariably buried with the dead.

* T. J. Z. No. 65.

The total length on the floor is 10 ft. 1 in. and at the height of the lintel 9 ft. 4 in.; the breadth is 9 ft. 7 in.; the height at the centre of the ceiling is 6 ft. 3 in. and from the angle of wall and ceiling to the floor it is 3 ft. 8 in. The portal is 2 ft. 4 in. in thickness, 4 ft. 2 in. wide and 5 ft. high. The edges of jambs and lintel are countersunk to retain a door. The orientation is 6 deg. W. of S. In the Kwanto alone, I have seen many hundreds of sepulchral caves. They are probably the most numerous of all the Yamato tombs. In some places the rocks are honeycombed with them, for example at Toyosato, about 4 miles from Utsunomiya, some of which are shown in Fig. 215. During the middle ages these were converted into shrines, unless we assume that burial in caves continued far into Buddhist times, for some of these caves contain Buddhist images.

The dolmen, seldom found exposed in Japan, if we except the island of Iki, has originally been always covered by a mound. Cists and sarcophagi frequently occur within this setting; probably in most, if not all cases, a chamber of stone, clay, or wood was provided for the deceased. The tumulus sometimes attained majestic proportions and exceeded in area, though not in height nor solidity, the pyramids of Egypt, which were evolved from the conical mound. Gowland refers to a mound at Mise, in the province of Yamato, which "cannot have been less than 1000 ft. long and 600 ft. broad (although it is now slightly smaller) and the peak is 84 ft. high."* He also mentions the tombs attributed

* "The Dolmens and Burial Mounds of Japan." p. 23.

to the Emperor's Nintoku, Richu and Ōjin "none of which are less than 1200 ft. in length and 60 ft. in height. The first of these three is specially noteworthy for its vast extent, being about 90 ft. high and with its moats covering about 80 acres of ground." The area of the great pyramid is 755 ft. square.* According to K. Hamada the tumulus of the Emperor Ōjin is about 9000 ft. in circumference.†

In a list of tumuli given by the San Ryoshi or Records of Imperial Sepulchres, the greatest in extent is that of Tenchi (A. D. 668-71) which with its embankments measured no less than 5040 ft. *square*! The height, according to the Fuso Ryakki, is 20 ft. The next is that of the Emperor Konin which measures 3240 by 2880 ft. Those of Nintoku and Daigo are each 2880 ft. square; the former is said by the Fuso Ryakki to be 50 ft. in height but Prof. Gowland who presumably estimated it, gives it as 90 ft. Then follow 10 others of 1800 ft. square or over, while a dozen others are over 1000 ft. square, some of the last 22 being oblong in shape. The San Ryoshi gives an instance of joint burial, the Emperor Tenbu and his consort, afterwards the Empress Jito, having been interred in one dolmen. The Fuso Ryakki adds another case, i. e. that of the Empress Suiko who was buried in the tomb of Prince Takeda. The Nihongi gives the dying injunctions of the Empress to her ministers:—"Of late years the

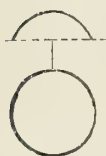
* "Manual of Egyptian Archæology" by Prof. Maspero, p. 134.

† T. J. Z. No. 148. The Nihongi throws a side-light on the vast amount of labour needed for the erection of these Imperial monuments when it remarks:—"owing to the expedition against Silla, it was impossible to bury the Emperor" (Chiui, husband of Jingō Kōgu.) Aston's Translation, Vol. I, p. 223.

five grains have not produced well and there is great famine among the people. Let there therefore be no costly interment by raising for me a *Misasagi*, but let me be buried in the *Misasagi* of the Imperial Prince Takeda." * The Nihongi also gives several other instances of joint interment e.g. the Emperor Ankan along with his wife and younger sister,† the Emperor Senkwa with his wife and her infant child‡ and the "Emperor Wosada" in the tomb of his mother, the Empress Consort.§

Burial mounds in Japan may be divided into two main classes viz. conical and compound.

The conical mound is usually rounded
Fig. 227. at the top, but may be truncated and is



occasionally terraced. It is the more common and the more primitive, though it persisted during, and outlasted the period of, the compound mound. In the case of distinguished personalities it occupied, in early times, the tops of hills and, according to circumstances, covered dolmens, or coffins of wood. In later times it was erected on plains, low plateaux and the sides of hills, though sometimes on the summits. The sarcophagus of stone probably became associated with the mound at a later date, and that of clay at a still more recent period. The interment in the mound is above the surface of the ground in nearly all cases where there is a dolmen

* Aston's Translation. Vol. 2. p. 156

† Ibid. Vol. 2. p. 32.

‡ Ibid. Vol. 2. p. 35.

§ Ibid. Vol. 2. p. 118.

or sarcophagus of stone or clay, but in the case of cists is sometimes below the level of the ground. Cists are also found in graves. The grave differs from the mound in that the earth displaced by the interment alone covers it, while in the case of the mound the soil is specially transported to the burial spot. The distinction is, after all, much a question of size. Simple or conical mounds were sometimes provided with a moat. Fig. 228 is a sketch

Fig. 228.



SKETCH OF MOATED SIMPLE MOUND
PRINCE OF HYUGA.

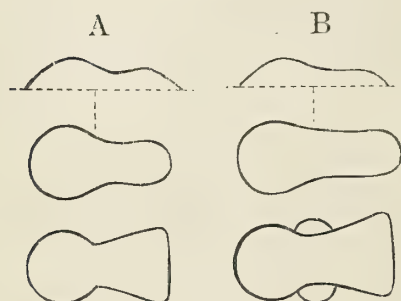
of a moated and terraced mound reported by B. Miura,* at Miyake village in the province of Hyuga. The is said to be between 30 and 40 ft. high; the circumference is 480 ft. and the surrounding bank is

* T. J. Z. No. 58.

from 7 to 8 ft. high. The smaller conical mounds contain few relics and were presumably the tombs of persons of lesser note.

The compound tumulus may be subdivided into double mounds and platform mounds, Fig. 229 A

Fig. 229.



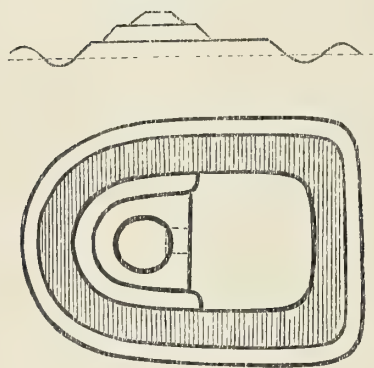
and B, either of which may have two small mounds attached to it. The double mound has two peaks, one of which is much lower than the other. The platform mound has a peak and an almost, or quite, horizontal prolongation at its

base. Prof. Gowland does not think that there were originally two peaks. He imagines that the depression often seen between the two portions of the double mound is due to weathering. This has doubtless sometimes been the case. Yet I cannot entirely concur in this opinion. Probably both peaks have suffered from settling and weathering and the lower has in some cases been nearly obliterated. Though my experience is not very extensive, I have seen several small conical mounds in such intimate contact that there could be little hesitation in calling them double mounds and in several instances of the large compound mound the lesser cone is too distinct to permit of doubt that it was originally intended as such. The occurrence too, of small attached mounds, though by no means frequent, proves that the idea

of combining mounds was familiar to the builders of these monuments. The presence of interments, several cases being known, in *both* mounds and one or two instances e.g. Fig. 210 where a dolmen chamber exists in either mound, are also noteworthy. But the best proof that some of these compound mounds had originally two peaks is the fact that in a few cases that have been investigated an undisturbed layer of cobbles covers the whole double mound. On the other hand what I have termed the platform mound is more prevalent than the true double mound and was perhaps seldom provided with more than one peak. Some of these mounds are of great size, in which case the platform may be nearly as broad as the base of the peak and is sometimes squared off at its free end. In the smaller mounds however, it is somewhat narrower than the peak. The mound is sometimes constricted where the two portions meet, Fig. 229, and in the case of the large double mound with squared off platform this gives the effect of a triangle inserted at its apex into a circle, as Prof. Gowland has remarked. The triangle and circle figure largely in the few decorative motives of the Yamato and it is possible that these larger platform mounds were made to conform to a symbolical figure. It is interesting to note that an old Japanese name for the large platform mound, "*Zempo Koen*," meaning "front square, back round" correctly expresses their position when adjacent, or attached to, hills, the platform being always in front. K. Takahashi informs me that this applies to all mounds of this type.

It is not unlikely that the platform was used for the funeral and memorial rites. I am inclined to think, though my observations are insufficient, that as in the case of some Chiuese platform mounds, a small mound was sometimes raised on the platform itself. The dolmen entrance is not always oriented towards the platform. The dolmen on the Atago-

Fig. 230.



yama mound at Mibu in the Province of Shimotsuke, is oriented towards its platform, which is of great size,* Fig. 229. In this, as in many other platform mounds the peak is terraced.

While some of the compound mounds are definitely identified as *Misasagi*† or Imperial sepulchres, others also having this reputation, a very considerable number have not even been traditionally associated with royal burial nor can they be at this date. Doubtless many of these are the sepulchres of

* My notebook, (which was thick and suggestive of wealth) disappeared while waiting for a night train at Utsunomiya station, and I have not yet had another opportunity of taking detailed measurements of this most interesting mound. The following measurements have been reported by K. Shirai:—Length, 690 ft., breadth 180 ft., height about 20 ft., width of moat about 40 ft., height of bank, about 6 ft. The rough plan, Fig. 230 was done from memory of a sketch which I made on the spot. The shaded area represents the trench and the light areas the embankment and mound, which is terraced. The small square area shows the position of the dolmen.

† *Misasagi* 陵 from *Mi* (honorific) and *Sasagi* (*Sa-sa*, narrow-narrow and *gi*, a castle, used in the sense of “grave” during the Han dynasty).

princes or chiefs and nobility of a later time, and of their immediate relatives. Some of the smaller platform mounds appear to be attendant on larger ones. Whether these indicate contemporaneous or subsequent burial one cannot always be certain. It is probable that some were contemporaneous and mark either the sacrifice of retainers or death in battle. The term "*Kuruma-tsuka*" or "wheel mound" is applied to the compound mound when there are accompanying mounds on either side of the junction between the platform and peak.* Fig. 228 B.

Besides earthen mounds and graves, it would appear that interments were occasionally covered by cairns or *Tsumi-ishi-tsuka*, (piled-up-stone-mound). Prof. Tsuboi has described some of these as formed of heaped up stones from 6 in. to 1 ft. in diameter. He mentions that they have been found in the provinces of Sanuki, Awa and Sagami, but there is still some uncertainty as to what extent they were employed for burial. S. Fuse investigated some mounds consisting of "piled up round stones" at the village of Shikima in the province of Rikuzen and ascertained that they covered interments. Some appear to have been heaped up over cists made of stone slabs, and a "stone room" is mentioned.† There is no doubt that some of the burial mounds consist of gravel with only a small proportion of earth, and that

* I understand that no excavation has been made to ascertain whether these small mounds contain interments. Prof. Miyaki states that all Imperial sepulchral mounds are accompanied by smaller round mounds "which are probably the graves of retainers" T. J. Z. No. 70.

† T. J. Z. No. 222.

many are covered with cobbles. In the province of Yamato there is, as I am informed by K. Takahashi, a double mound covered with quartz pebbles mixed with some of agate. The motive must have been ornamental, but I have seen a number of mounds where cobbles have been placed as a protection against weathering. As these are sometimes undisturbed, the original shape of the mound can be ascertained. One dolmen mound near Maebashi in the province of Kotsuke, which I saw in process of removal for agricultural purposes, consisted of gravel and cobbles.* Sometimes the covering cobbles are not laid over the whole surface but in encircling bands at various levels.

The Yamato sepulchres have rescued from oblivion many objects which were dedicated to the service of the departed and which will be described in the two following chapters. We may be sure that food and drink were deposited in the tombs and that cloth, utensils and contrivances of wood, e.g., spear—and arrow-shafts and bows, were also included. In the damp cell, however, in which such articles have been immured for so many centuries, nearly all organic matter has disintegrated and disappeared. In an age when such articles must have been difficult to obtain, it is evident that ornamented swords, armour, and horse trappings of studded iron inlaid with silver and gold, must have represented a sacrifice

* "Fine pebbles gather—rolled down by Ishi's waters—to heap beside me—that some kind soul may tell her—hereby her husband lieth" Manyōshū, Dickins' Translation Vol. 2, p. 50. One may repeat also the Scottish Highlander's expression of good will:—"I will add a stone to your cairn."

of no small value and that a powerful incentive was needed to occasion and to perpetuate it. Pride of station and the dislike to depart from conventional usage are to be reckoned among the motives which prompted and maintained this custom; but the main-spring of this lavish provision for the deceased was unquestionably belief in a future state.

In these offerings we have ample proof that provision for the ghost or transmuted personality was a prime necessity; in the occurrence of broken pottery in front of unopened tombs we have a significant hint, more positive than any tradition of ritual, that offerings to the manes were regarded as an effective means of securing their goodwill.

There is no indication that the objects buried in the sepulchres were purposely broken to ensure their death and passage into the spiritual state. The broken pieces of pottery found outside the tombs were either left there when the tombs were rifled, or belong to vessels used in the later rites and left in exposed situations.

Moreover, there is evidence that the distinguished dead were accompanied by retainers to do their service in the state to which they had attained. It will be sufficient here to mention a few instances of a custom which is recorded in ancient Japanese history. S. Mitsui has described a stone room at Ōno village in the province of Mimasaku, which contained three stone coffins, in each of which the remains of one body were found with swords, gold

and silver plated rings* etc. Inside the room, but outside the coffins, were fragments of human bones which are said to have filled 20 baskets in the process of removal. This does not prove contemporaneous burial, still less that retainers were slaughtered or permitted to commit suicide in order to accompany their lords. The sexes are not given, so we are at a loss as to whether these persons (perhaps about 15 in number) of evidently inferior station, were killed in battle. Yet, in the light of other observations and of historical statements, it may be inferred that these were retainers who were permitted, or compelled, to accompany the greater dead.

I. Yokochi has reported several dolmens at Yoshioka village in the province of Iyo, in which the signs of contemporaneous burial are more decided.† In one, Fig. 217, No. 14, a partition separated a single skeleton from a series of 12 bodies, one half of which were lying with the heads towards the chief interment and the other half towards the entrance. In another place were 10 bodies arranged near the entrance and a single one at the back of the chamber.

In yet another, there were 5 bodies at the front with 2 at the back. Prof. Tsuboi has mentioned the occurrence of 3 bodies in one stone room, which was partitioned into three, one skeleton being in the back compartment with iron weapons, ornaments etc., while "two retainers" occupied the middle section.‡ Several instances have been recorded

* K. K. Vol. I, No. II.

† T. J. Z. No. 170.

‡ T. J. Z. No. 153.

of bodies arranged in regular order, without apparent distinction, as in a cave in the province of Bungo, noted by S. Teraishi,* Fig. 226, No. 8. S. Adachi has reported a cist in a small mound accompanying a large oval tumulus at Onashibara, province of Hoki, where 3 bodies were laid with heads to the back wall, and 3 in the direction of the entrance.† Although the Kojiki refers to a “*hedge of men*” having been set up in the tomb of Yamato Hiko,‡ and the Nihongi states that the inhumation of living or slain retainers *around* the tumulus was an ancient custom, no remains have yet been reported; nor so far as I can ascertain, have even horse bones, which from their size might have been expected better to withstand decay, been found near the sepulchres. Yet both were sacrificed in ancient times. “When a man dies” says the Nihongi§ “there have been cases of people sacrificing themselves by strangulation, or of strangling others by way of sacrifice, or of compelling the dead man’s horse to be sacrificed, or of burying valuables in the grave in honour of the dead, or of cutting off the hair, and stabbing the thighs and pronouncing a eulogy on the dead (while in this condition.) Let all such old customs be entirely discontinued.” The classical instance of living inhumation, which is barely referred to by the Kojiki, occurred during the reign of the Emperor Suinin, who lived, according to this work, for 150 years,

* Ibid. No. 49.

† Ibid. No. 186.

‡ Chamberlain’s Translation p. 174. This was during the reign of the Emperor Suijin the predecessor of Suinin.

§ Nihongi Vol. 2. p. 220.

during which many miraculous events are said to have taken place. According to the Nihongi, the early chronology of which is unreliable, the Emperor Suinin reigned from 39 B.C. to 70 A.D., which is 12 years less than is allotted to him by the Kojiki. When Yamato Hiko no Mikoto, a younger brother of the Emperor died, "his personal attendants were all assembled, and were all buried alive upright in the precinct of the Misasagi. For several days they died not, but wept and wailed day and night. At last they died and rotted. Dogs and crows gathered and ate them. The Emperor hearing the sound of their weeping and wailing, was grieved at heart, and commanded his high officers saying :— "It is a very painful thing to force those whom one has loved in life to follow him in death. Though it be an ancient custom, why follow it if it is bad? From this time forward, take counsel so as to put a stop to the following of the dead!" Consequently, at the death of the Empress, Nomi no Sukune came forward in response to the query of the Emperor and said "it is not good to bury living men upright at the tumulus of a prince. How can such a practice be handed down to posterity? I beg leave to propose an expedient which I will submit to your Majesty." He then summoned from the "Land of Izumo" experts in the ceramic art and directed them "to take clay and form therewith shapes of men, horses and various objects, which he presented to the Emperor saying :—'Henceforward let it be the law for future ages to substitute things of clay for living men, and to set them up at tumuli.' Then

the Emperor was greatly rejoiced, and commanded Nomi no Sukune, saying: "Thy expedient hath greatly pleased our heart." So the things of clay were first set up at the tomb of Hibasu-hime no Mikoto. And a name was given to these clay objects. They were called *Hani-wa*. Then a decree was issued, saying: "Henceforth these clay figures must be set up at tumuli: let not men be harmed." * Aston, however, recalls Chinese accounts which speak of human sacrifice in Japan at the burial of a sovereign in A.D. 247.†

The *Haniwa* will be described in chapter 12, but I may mention that they are usually arranged in one or more rows around the tumulus and that they consist of cylinders of coarse terracotta sometimes surmounted with figures or heads of persons and animals, and occasionally of inanimate objects. Prof. Tsuboi, in an interesting brochure,‡ has surmised that the cylinders represent bundles of fascines such as might have been used to support the tumulus. There are one or two instances known of mounds surrounded at the base with boulders, seemingly with the object of preserving the form. About 20 human figures in stone have been found beside Yamato tumuli in Kyushu.

* Aston's *Nihongi* Vol. I, p.p. 178, 180 and 181.

† "At the time Queen Himeko died, a great mound was raised over her more than a hundred paces in diameter and over 1000 of her male and female attendants followed her in death." "Early Japanese History," T. A. S. J. Vol. 16. p. 59. But it is not improbable that Suinin died in the middle or end of the 2nd century A.D. instead of the 1st as given by the *Nihongi*. Jingo Kogu who may be the "Himeko" or Princess referred to, was the great grand daughter, as Suinin was the grandson, of the Emperor Kaikwa.

‡ "Haniwa-ko"—An Opinion about Haniwa.

Some figures are said to have been erected round the Misasagi of the Emperor Kinmei, the date of whose decease is given by the Nihongi as A.D. 751. Several stone figures were placed around a tumulus

Fig. 231.



About One-Tenth.

reputed to be that of Iwai, a governor of Tsukushi (Kyu-shu) in the time of the Emperor Keitei, A.D. 507-31. Among these were the effigy of a horse and a figure, presumably that of a soldier with arms raised. The latter is now in the Tokyo Imperial Museum, Fig. 231. This figure is about 4 ft. 5 in. in height; a sword is suspended in front to a belt. The handle of the sword is at a

slight angle with the blade, but is not well shown in the illustration. All the stone figures so far discovered are uncouth and rudely fashioned.

According to Prof. Miyaki, the substitution of stone images for living burial was known in China in the time of King K'uang of the Chou Dynasty, 612 B.C. This learned scholar has gathered from various Chinese works some interesting information about the ancient tombs of that country. It appears that the advance of culture had converted the crude dolmen into a finished chamber of masonry as early as the period of King Yu of Chou, 871 B.C. This, in common with all the ancient sepulchres, was covered by a tumulus and was provided with a corridor of "white stones." This account says that there were over 100 bodies "lying in a state of disorder," only one of which was a male. Among the enumerated contents of the tomb of King Hsiang, were *bronze* swords, gold beads and a stone bedstead. In that of his son was a coffin made of "over ten sheets of leather" which occupied a middle chamber, the first and third containing 3 figures of soldiers and 20 female figures respectively, with various articles of stone etc. In the third room also were found "hundreds of iron mirrors." Statements from old writings are also quoted respecting the sepulchres of the T'sin and Han dynasties.

T. Sekino has also given some account of the burial mounds of the Chou and T'sin dynasties in the Tokyo Anthropological Magazine,* and has further described the ancient Chinese tumuli in a recent

* T. J. Z. No. 254.

issue of the Literary Supplement of the Jiji Shimpō. From these sources one gathers that the ancient mounds took the form of the lower section or frustum of a pyramid, though exceptionally that of a cone. Those of the Chou dynasty were of lesser and simpler construction than those of the Tsin and Han. Those of the Tang dynasty were often built on elevated land. T. Sekino says that the burial mound of the Emperor Tai Tsung was built on a hill, on the top and sides of which "are the burial mounds of seven kings, twenty-one dukes, eight princesses, thirteen ministers, fifty-three civil officials, sixty-four meritorious generals, nine feudal lords and fourteen chiefs." It cannot be supposed that this indicates more than an assemblage of those who were entitled to associate together. Some circumspection therefore must be observed in attributing all the accompanying mounds in Japan, whether single or double, to the practice of killing retainers, or permitting them to commit suicide, known in later times as *Junshi*. Though doubtless some of the mounds attendant on *Misasagi* represent this custom, it is open to suppose that many were erected near such spots after the natural or at least unrelated demise of their occupants. The stone images placed near the Chinese Imperial tombs, from the T'sin dynasty onward appear to have belonged to a high order of sculpture, the horses and other animals including an ostrich, figured at the tumulus of Tai Tsung, being veritable works of art. During this dynasty communication was encouraged with Persia and even with Europe.

The sepulchres of ancient Korea have not yet been

systematically examined, but T. Sekino, N. Ono, S. Yagi, R. Imanashi and others have recorded a few observations. From these it would appear that the dolmen, called *Kohindol*, is usually of small dimensions, that the classical form with a single stone covering supported on rude uprights is fairly common and is often denuded of soil. Tumuli occur all over the peninsula; the simple mound is the rule but compound mounds are not unknown. The pottery in these mounds and dolmens bears a close resemblance to that of the Yamato tombs and further emphasises the connection between the cultures of ancient Korea and Japan. In Ireland and Japan on the extreme west and east of the Eurasiatic land belt we note the presence of rude dolmen types which survived into the general historic era. The latter country, though physically not more isolated than the former, has been less subject to alien domination and therefore continued to erect those monuments till far advanced in its iron culture.

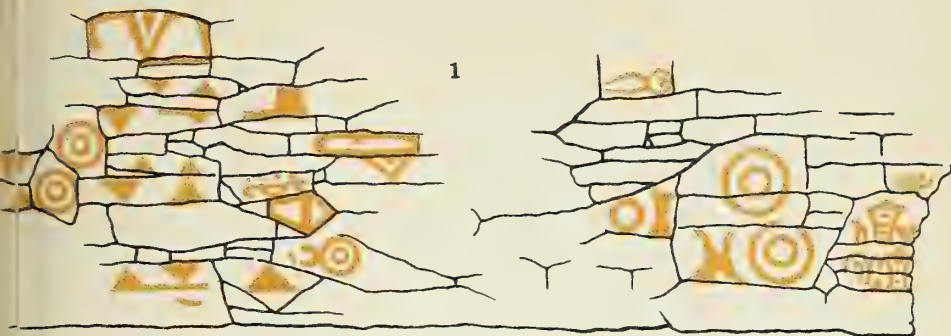
The orientation of the Japanese sepulchres has received only a limited degree of attention up to the present time. Prof. Gowland has given the orientation of about 120 dolmens; these accord with my observation of 43 dolmens in Kyushu and the Kwanto and with most of the Japanese observations that I have seen, in placing the orientation to the south with a general deflection east or west in about equal proportions, with a slight proclivity to the former. Exceptional cases occur in which the orientation is to the north-east or north-west, but in about 95 per cent of the cases the direction of the entrance is southerly. It is yet too early to hazard a guess as to

whether the orientation was carefully arranged for a particular date of sunrise, or whether the departures that are noticed are accidental, or due to some other circumstance. Though in the case of caves, the choice of position was more restricted, there is here also a very decided orientation towards the south in the vast majority of cases.

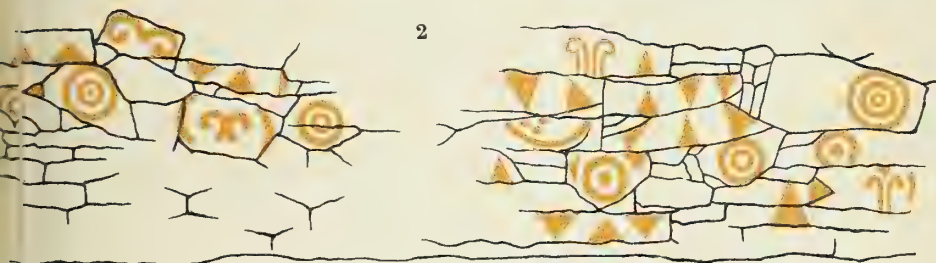
The absence of inscriptions in the tombs corresponds with the illiterate condition of the Yamato invaders and in later times to the conventionality of funeral custom and possibly superstition concerning the writing of personal names. The epitaph did not come into vogue in Japan till the time of the Empress Gemmyo, A.D. 708-15, and amongst the commonality at a very much later period ; indeed there are tombstones in some rural districts, erected within the last century or so, which are devoid of any inscription. Some of the dolmens, caves and cists are, however, decorated in red pigment * and in one or two cases there has been an effort at symbolism and even actual writing. The most noteworthy instance is that of a dolmen at Hino-oka village in the province of Chikugo, Fig. 232, which was described by Prof. Tsuboi and illustrated by N. Ōno. This dolmen, which is oriented to the south, is decorated with various signs painted in red on the walls. I am disposed to think that these signs are partly zodiacal. It will be observed that there are 12 suns on the side walls if we count only double or centered circles (signs of the sun) which correspond to the 12 months

* Vermillion was also believed, both in China and Japan to have a decidedly preservative influence on the corpse.

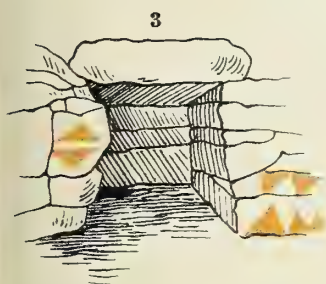
Fig. 232.



LEFT WALL.



RIGHT WALL.



BACK WALL.





YAMATO SIGNS

Inscribed on Dolmen Walls. Nos. 1 to 4, from dolmen at Hino-oka Village.

No. 5 from dolmen at Tsubako village.

PROVINCE OF CHIKUGO.

of the sun's course through the ecliptic. If, on the other hand, we include the single plain circle we have the option of excluding the apparently horned figure to its left, which might be regarded as the sun becoming the Bull (most anciently the first sign of the zodiac) an ancient mythical interpretation of its entry into that constellation. This might, however, be intended, like the plain circle in A, for the moon in relation to the sun. The 6 suns on the back wall, No. 4, are surrounded by signs remarkably like those of the Ram constellation which, about 2000 B.C., surrounded the sun at the vernal equinox or rose just before it; it has since been regarded as the first sign of the zodiac.

The 16 figures, No. 5, from a dolmen at the village of Tsubako in the same province were possibly symbolical offerings. The Egyptian hieroglyph  an altar,* was probably originally an offering. Somewhat similar characters with allied significance are found in the Sumerian writing of B.C. 4000. What is probably the most archaic Chinese character for blood, must have been an † offering.

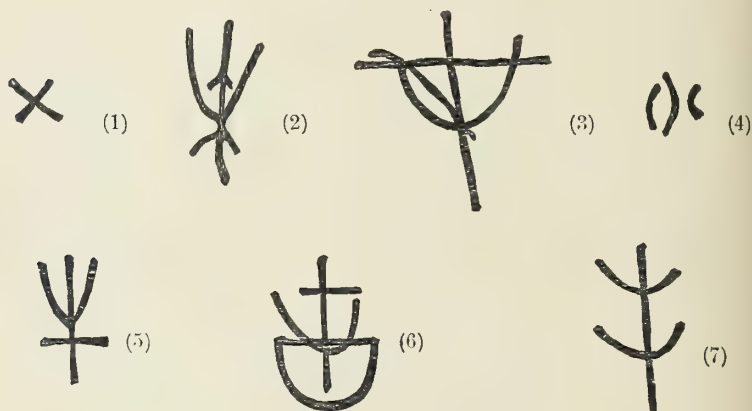
Among the sepulchral caves near the village of Yoshimi in the province of Musashi, Prof. Tsuboi found one with an inscription in what appears to be archaic Chinese. It must be premised that these characters differ slightly from those of ancient Chinese, but the latter present in themselves nearly if not quite as much divergence as the most aberrant of these.

* Egyptian Grammar, by Adelf Erman.

† Taken from the "Kan Ji Gen Ri" by T. Takata.

386 YAMATO SITES AND SEPULCHRES.

The characters might have been used phonetically : it is probable that this was so, as was chiefly the case with the writing of the Kojiki. Taking them in the order in which they are written, I can trace no relation between them. In archaic Chinese (1) stood



for the numeral “ five,” (2) resembles the character for “ end,” but also the zodiacal “ sheep,” (3) would be “ middle,” if the oblique stroke through the bow were accidental ; (4) might be a “ river ;” (5) seems to be a “ tree ” but might also have been “ ox ;” (6) has a very suggestive resemblance to “ tell ” or “ tongue ” and (7) is certainly a “ hand ” if the characters be Chinese. Similar characters and signs occur on the Yamato pottery and will be noticed in Chapter 12.

CHAPTER XI.

RELICS OF METAL AND STONE.

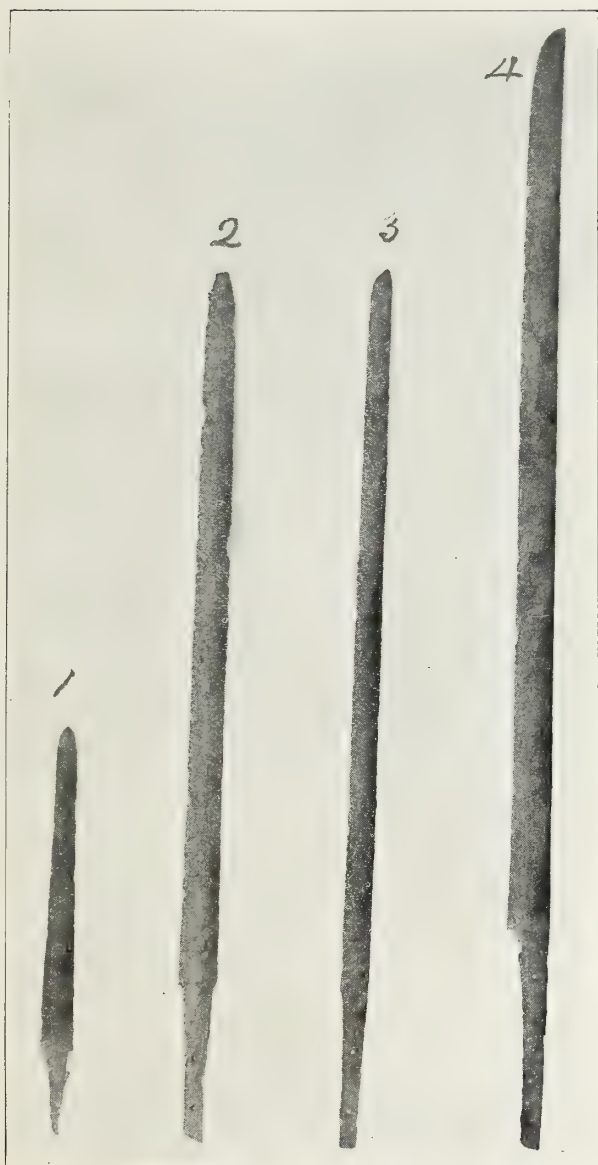
The protection afforded by the sepulchres during so many centuries, extending in some cases for over 2000 years, did not suffice to preserve objects of organic material. Not only have perishable food stuffs completely disappeared but articles of wood and textile have left but slight traces. A few insignificant scraps of cloth and some fragments of wood from coffins, or adhering to objects of metal, represent practically everything of an organic nature from the Yamato tombs. Objects of metal, stone, earthenware and glass have survived, but those of iron have suffered much, and most have crumbled into flakes and fragments of rust. As in the case of the shellmounds, the enduring material is only a fraction of that originally deposited. Food, textiles, and articles and fittings of wood were surely included in the outfit for the dead. When we witness the noble weapons and armour, the splendid horse trappings, the vessels for food and drink, the ornaments and various *objects de luxe* which have been recovered from the dolmens, caves and other tombs, we realise that the living Yamato gave up the best to their dead. Well might the Emperor Kotoku

say :—" the poverty of our people is absolutely owing to the construction of tombs."*

The material brought to light has not only diminished through decay but was originally limited to articles appropriate to the needs of the warrior chief, his officers and immediate dependents. From the greatest to often the least, the sepulchres of the Yamato contain swords, usually arrow-heads and sometimes spear-heads. Even the smaller caves and cists which were probably made for the lesser gentry and the farmer, show indubitably that their occupants, if they had not lived by the sword, were addicted to warlike pursuits and were probably bound to military service for their superiors. We can scarcely assume that this perpetual readiness for the fray was entirely owing to opposition on the part of the primitive inhabitants. South of the Ise-Ōmi line these must have been fairly well dispersed by the commencement of the present era, yet this region shows no lack of weapons. The relations with the parent peoples of Korea were probably of a varying nature and there is Korean evidence that the Yamato invaded their coast as early as 14 A.D. Yet this would not account for the universal distribution of weapons; we are led to suppose that previous to and during the earlier centuries of the present era, the country was in a state of perpetual unrest. When the warrior departed from this life his weapons and armour were clearly necessary to a state which presumably resembled that which had preceded it, while the

* Aston's *Nihongi*. Vol. 2, p. 208.

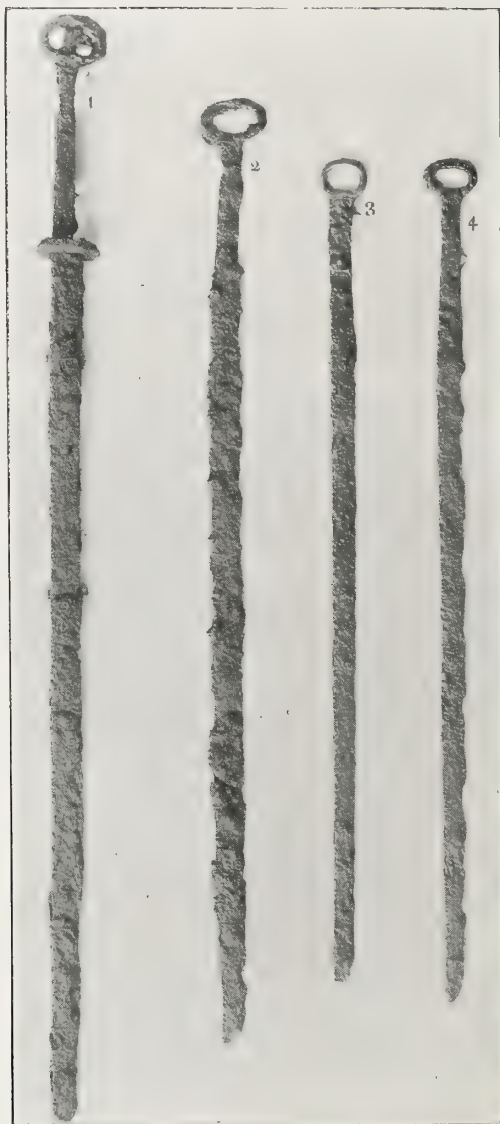
Fig. 233.



TOKYO IMPERIAL MUSEUM.

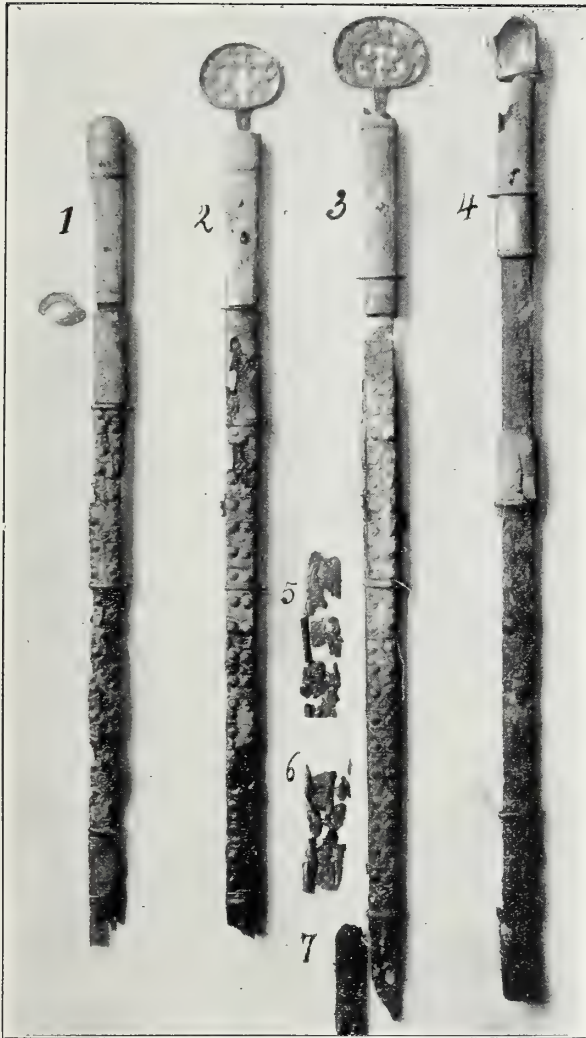
(About One-seventh Linear.)

Fig. 234.



TOKYO IMPERIAL MUSEUM.
(About One-seventh Linear.)

Fig. 235.



TOKYO IMPERIAL MUSEUM.
(About One-seventh Linear.)

Fig. 236.



TOKYO IMPERIAL MUSEUM.

(About One-eighth Linear.)

Fig. 237.

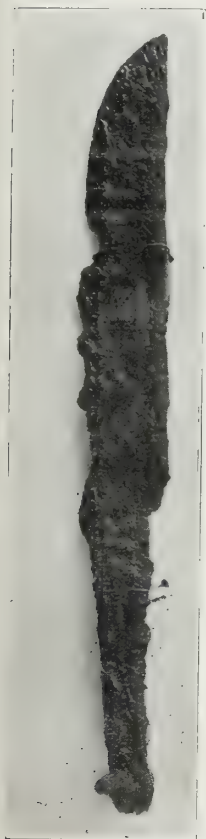


(About One-fourth Linear.)

Fig. 239.



Fig. 238.



(About Three-fifths
Linear.)

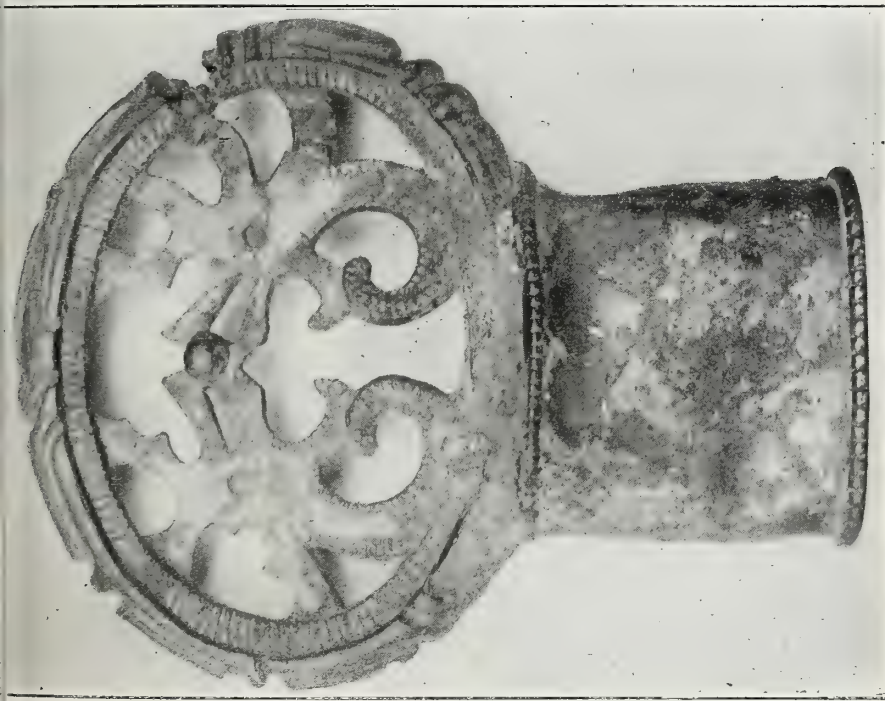
TOKYO IMPERIAL MUSEUM.

(About One-fourth Linear.)

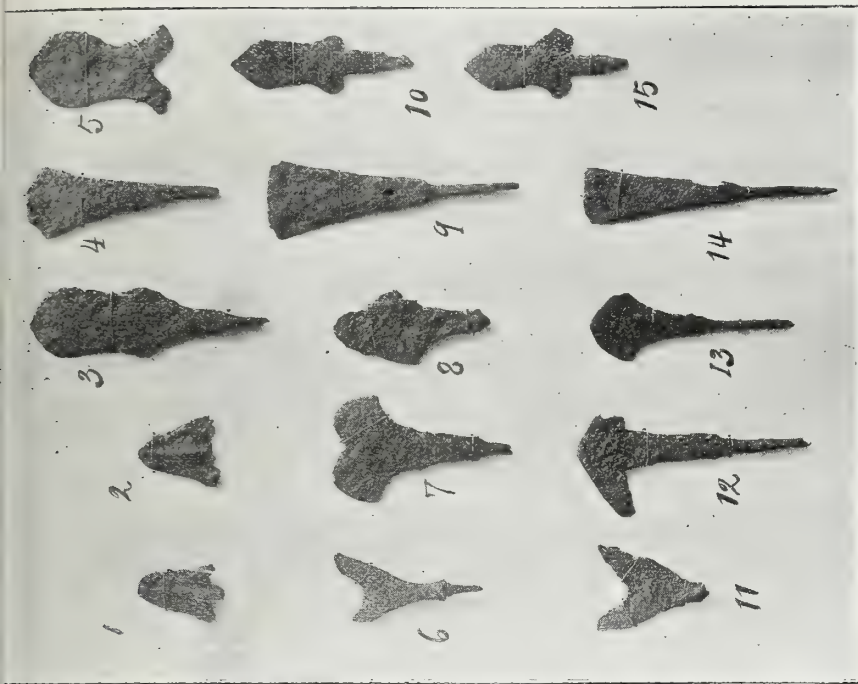
Fig. 240.



(Half Size.)



(Actual Size.)



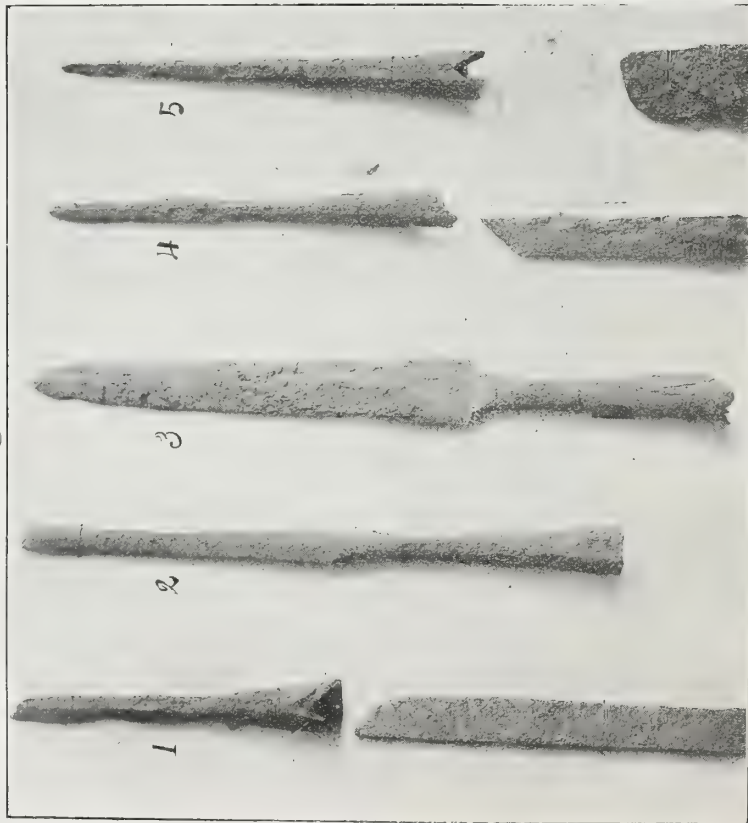
TOKYO IMPERIAL MUSEUM.
(About Quarter Size.)

Fig. 244.



TOKYO IMPERIAL MUSEUM.
(One-fifth Size.)

Fig. 243.



TOKYO IMPERIAL MUSEUM.
(Quarter Size.)

Fig. 245.



TOKYO IMPERIAL MUSEUM.
(About two-fifths.)

Fig. 246.



TOKYO IMPERIAL MUSEUM.
(About Half Size.)



IMPERIAL UNIVERSITY COLLECTION.
(Quarter Size.)

Fig. 248.



TOKYO IMPERIAL MUSEUM.
(About One-third.)

Fig. 249.



TOKYO IMPERIAL MUSEUM.
(About One-fourth.)

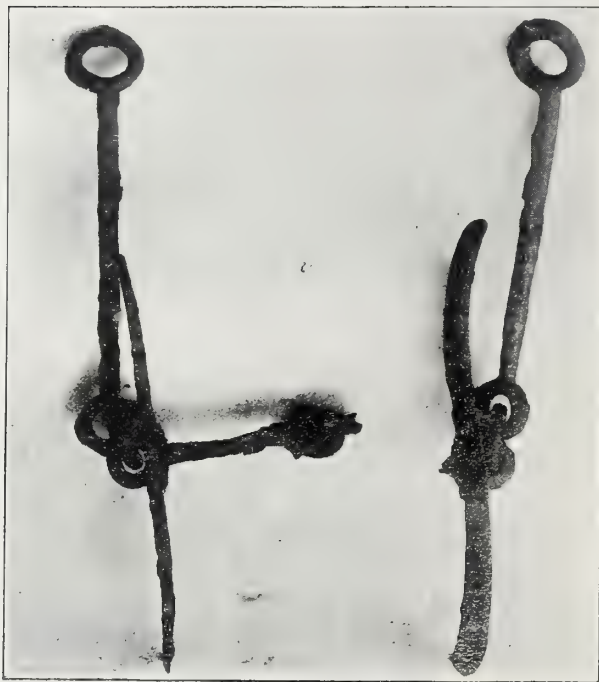
Fig. 250.



TOKYO IMPERIAL MUSEUM.
(One-fourth.)



TOKYO IMPERIAL MUSEUM.
(About One-third.)



TOKYO IMPERIAL MUSEUM.
(About One-third.)

Fig. 253.

3

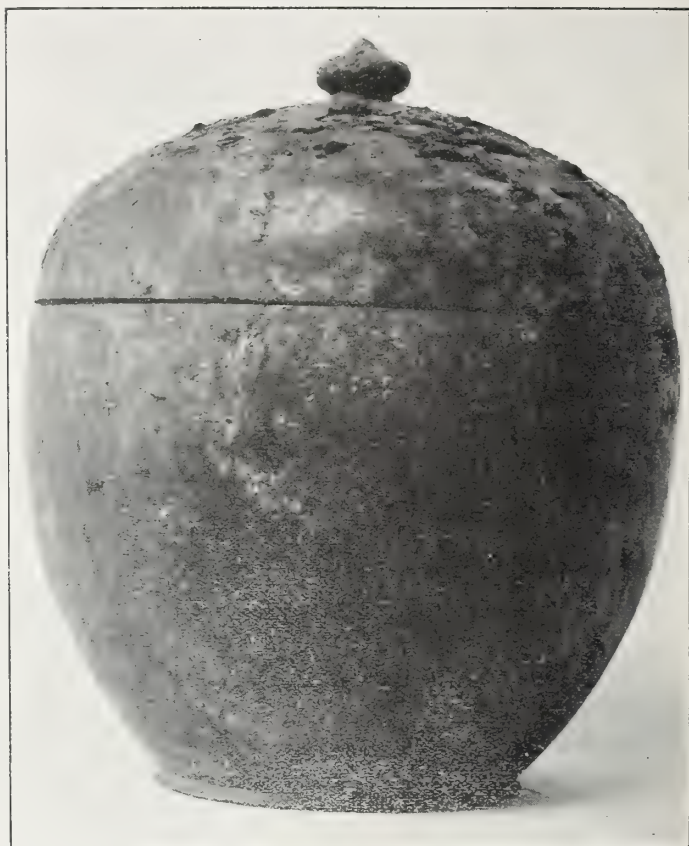
2

1



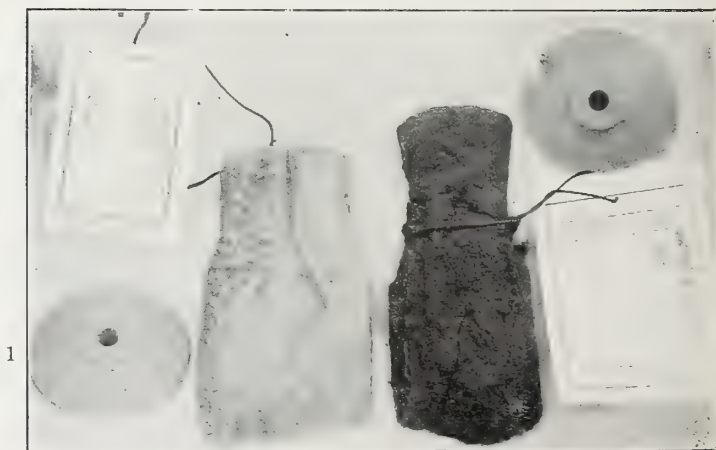
(Half Size.)

Fig. 254.



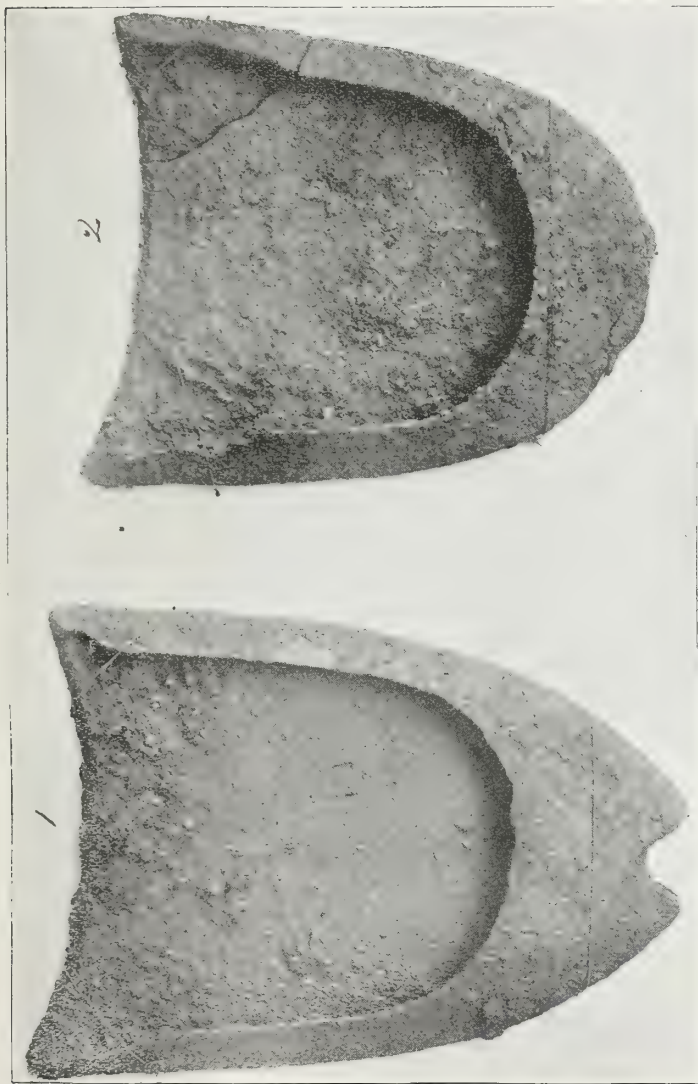
TOKYO IMPERIAL MUSEUM.
(About One-third.)

Fig. 255.



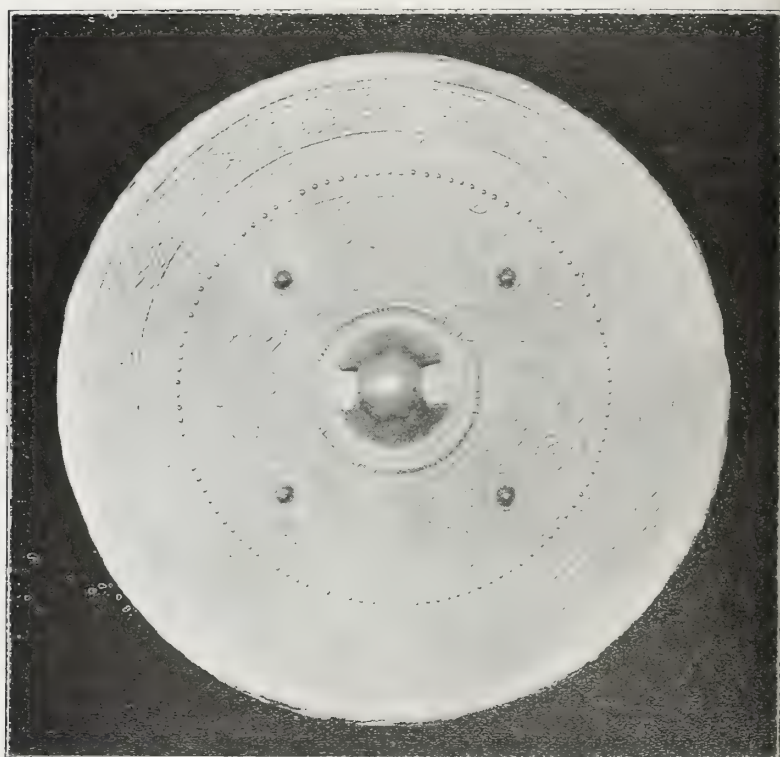
2 3
IMPERIAL UNIVERSITY COLLECTION.
(Half Size.)

Fig. 256.



TOKYO IMPERIAL MUSEUM.
(About One-third.)

Fig. 257.



(Half Size.)

Fig. 258.



TOKYO IMPERIAL MUSEUM.

(One-fifth.)

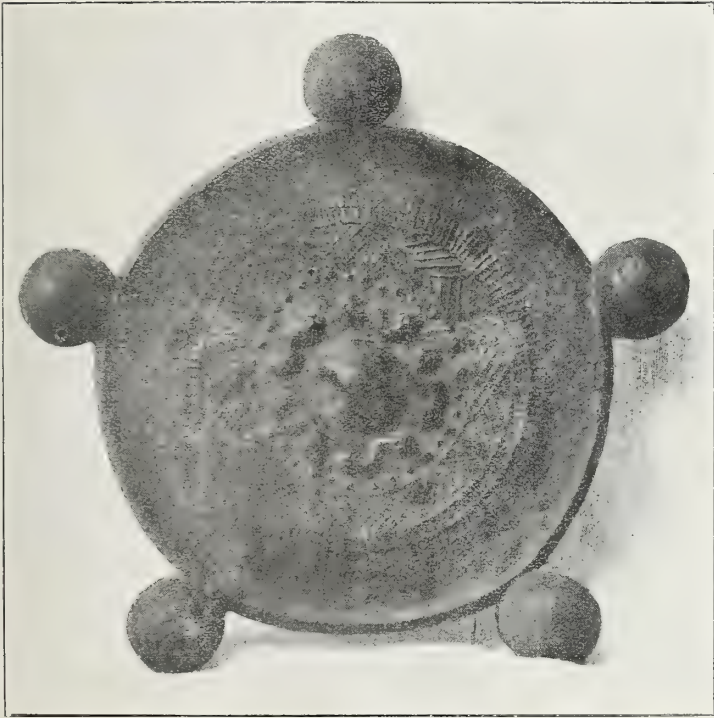
Fig. 259.



TOKYO IMPERIAL MUSEUM.

(One-third.)

Fig. 260.



TOKYO IMPERIAL MUSEUM.

(About Two-thirds.)

Fig. 261.



TOKYO IMPERIAL MUSEUM.

(About One-third.)

The black margin is shadow.)

stirrups, bits and trappings of his horse, his personal ornaments and articles of daily use were bestowed in keeping with his station. For this reason the contents of the sepulchres are of a specialised order and do not furnish a complete picture of the appurtenances of the Yamato people generally. Yet we are not without some other evidence. A few articles and models of domestic and technical application have been preserved, and give us a little insight into the everyday life of the people.

The objects of iron discovered in the tombs comprise :—

1. Swords and daggers. 2. Hilt-guards and pommels. 3. Arrow heads. 4. Spear and halberd heads. 5. Armour and helmets. 6. Stirrups and bridle bits. 7. Ornamental trappings for horses. 8. Axes, hoes, or chisels. 9. Hoes or spades. 10. Chains. 11. Rings. 12. Buckles. 13. Smith tongs or pincers. 14. Nails. 15. Casket handles, hinges and other fittings.

In copper and bronze we find :—

1. Arrow-heads. 2. Spear-heads. 3. Hilt-guards and pommels. 4. Scabbard covers and pieces of sheet copper for ornamental or practical use. 5. Helmets. 6. Arm and leg guards. 7. Shoes. 8. Horse trappings. 9. Bells. 10. Mirrors. 11. Bowls. 12. Bracelets and rings. 13. Various fittings.

Silver and gold were employed chiefly in plating, but fine chains and pendants, as well as rings of pure gold and silver, have been met with.

The stone objects may be divided into two classes, viz. :—

- A. Articles of use or ornament.

These include, besides the stone sarcophagi :—

1. Head rest. 2. Mortar and pestle. 3. Caskets and vessels. 4. Cups and other vessels. 5. Bracelets. 6. *Magatama*. 7. Other ornaments. 8. Plumb-line pendant (?) 9. Spindle weight. 10. Objects of unascertained function.

B. Sepulchral substitutes.

Among these have been found imitations of :—

1. Sword or dagger. 2. Sheathe knife. 3. Arrow-head. 4. Spear-head. 5. Shield. 6. Armour. 7. Wooden clogs. 8. Mirror. 9. Comb. 10. *Magatama*. 11. Cooking knife. 12. Sickle or scythe blade. 13. Hoe or chisel. 14. Chisel or spear-head. 15. Bowl. 16. Table. 17. Sword pommel. 18. Nondescript objects.

Bangles and other objects of cut shell are rare. Pottery will be described in the following chapter.

The swords of the Yamato are all of iron. As previously remarked, there is no positive evidence that bronze swords have been found in the Yamato tombs, but there exist some grounds for the belief that the bronze sword was in use at a period not far removed from the commencement of dolmen building in this country. An examination of the iron swords of the Yamato helps to confirm this idea. A certain proportion of the swords, which might perhaps average as high as ten per cent. (considerably more in some provinces), are DOUBLE-EDGED with a central ridge. In this respect they are like the bronze sword of Japan, but have lost the leaf form and resemble the straight bronze swords of Assyria and Mycenæ, made for thrusting as much as for cutting. The

central ridge may safely be regarded as a vestige of casting, that is to say of the bronze sword, surviving in the weapon of hammered iron*. Two of these are given in Fig. 233, Nos. 1 and 2. It will be observed that this sword is straight and that its proportions are more slender than the thick-set and more brittle weapon of bronze. Nos. 3 and 4 show the prevalent type of SINGLE-EDGED Yamato sword; the back is nearly, or quite, straight. Frequently I have noticed a very slight curvature of the back towards the point, quite evident in No. 4, and in several specimens in my collection. Such a sword, though not to be despised in the thrust, is specially adapted for cutting, and is therefore more suited for cavalry work. I have observed that when the blade is perfectly straight, the point of the single-edge weapon is usually formed by an acute angle, No. 3, whereas in those with a slightly curved back the point is formed by curvature of the edge, No. 4. Since the Wado period the curvature of the sword has been increased. Y. Seki informs me that he has seen a sword slightly curved throughout, with the concavity facing the edge. This gentleman, who has made a special study of ancient weapons, states that the greatest length of the

* (p 3) Ceremonial swords, of which I have a specimen in my collection, with double edge, central ridge, and with sometimes a tendency towards the leaf form, were used at certain court and religious (Buddhist) ceremonies and may, perhaps, be a "missing link" between the bronze and iron types.

The sword, from its association with individual prowess, is still worshipped in certain localities as deity or importuned as a fetich. Several shrines are known to harbour deified swords, usually regarded in the light of *Shintai* or "God-body," which implies that either the personality or some influence pertaining to the God, is present in the object in question. I am told that the straight, two-edged sword has not been found with its pommel.

Yamato blade is about 4 ft. No. 4 of Fig. 233, is about 3 ft. 2 in. long in the blade and 7 in. in the tang. This seems to be the usual length, but swords are often seen a little longer or shorter. In later times two sizes, besides the dagger, were recognised, but the ancient Yamato sword exhibits many gradations in length. So many are incomplete that it is difficult to speak with confidence as to the length most in vogue; probably 3 ft. is sufficiently near the mark. Short swords, one might perhaps call them daggers, though some seem to have been designed for cutting as much as for stabbing, were also used. These are from 8 in. to 1 ft. or thereby in the blade, (Fig. 233, No. 1, and Fig. 240, No. 12). A knife or dirk is shown in Fig. 238, about 3 to 4 in. long in the blade, which was probably used in close combat. The short sword is occasionally mentioned in the "Manyōshū."

The tang is often perforated for the pegs which served to retain it in the handle, but sometimes the tang itself constituted the handle, in which case it was probably wound round with cord or other material. An ancient form, in which the tang is continuous with a ring-shaped pommel, deserves notice, Fig. 234. The ring may have served for suspending the weapon as well as to prevent slipping from the hand. The ring pommel was common in ancient China, where the archaic character for sword represented a ring and a scimiter blade, several centuries B.C.,* and the sword coins always have



* The first two were kindly given by T. Takata. The last is taken from one of his works, i.e. "Kan Ji Gen Ri."

a ring. In the *Manyōshū*, the expression *Komatsurugi* (Korean sword) is always followed by *Wa*, meaning a ring, so there is a presumption that this form of sword came immediately from Korea.* The disc-shaped type (Fig. 235, Nos. 2 and 3 and Fig. 241), is apparently descended from the ring form. The design is perforated and usually represents two dragons holding a ball. This is a distinctive Chinese emblem and betrays the source of these swords. Other motives, which are rare, are a single dragon, bird, and human head.

The pear, or bulb (true pommel) form is also peculiar, Fig. 236. It is set at an angle to the grip and appears to me to be of Turanian descent. It might be supposed that the large bulb was intended to counterpoise the blade, but this was evidently not the case, for S. Wada tells me that they are hollow or are stuffed with light material such as scraps of linen. The knob figured in No. 1, Fig. 235, resembles that on some European rapiers. K. Takahashi states that the swords with bulbous pommels have not been found in China. He believes them to be more ancient than any other type yet found in Japan, and suggests that they might be the "mallet-headed swords" of the *Kojiki* and *Nihongi*. *Kabu*, a part of the word *Kabutsuchi* (mallet-headed), used to designate these weapons, means a turnip. This word is also found in *Kaburaya*, "an arrow with its head shaped like a turnip, having three perforations which make a humming sound as it flies." †

* "*Komatsurugi Wazami*" etc. Lay 24th.

† Brinkley's Dictionary.

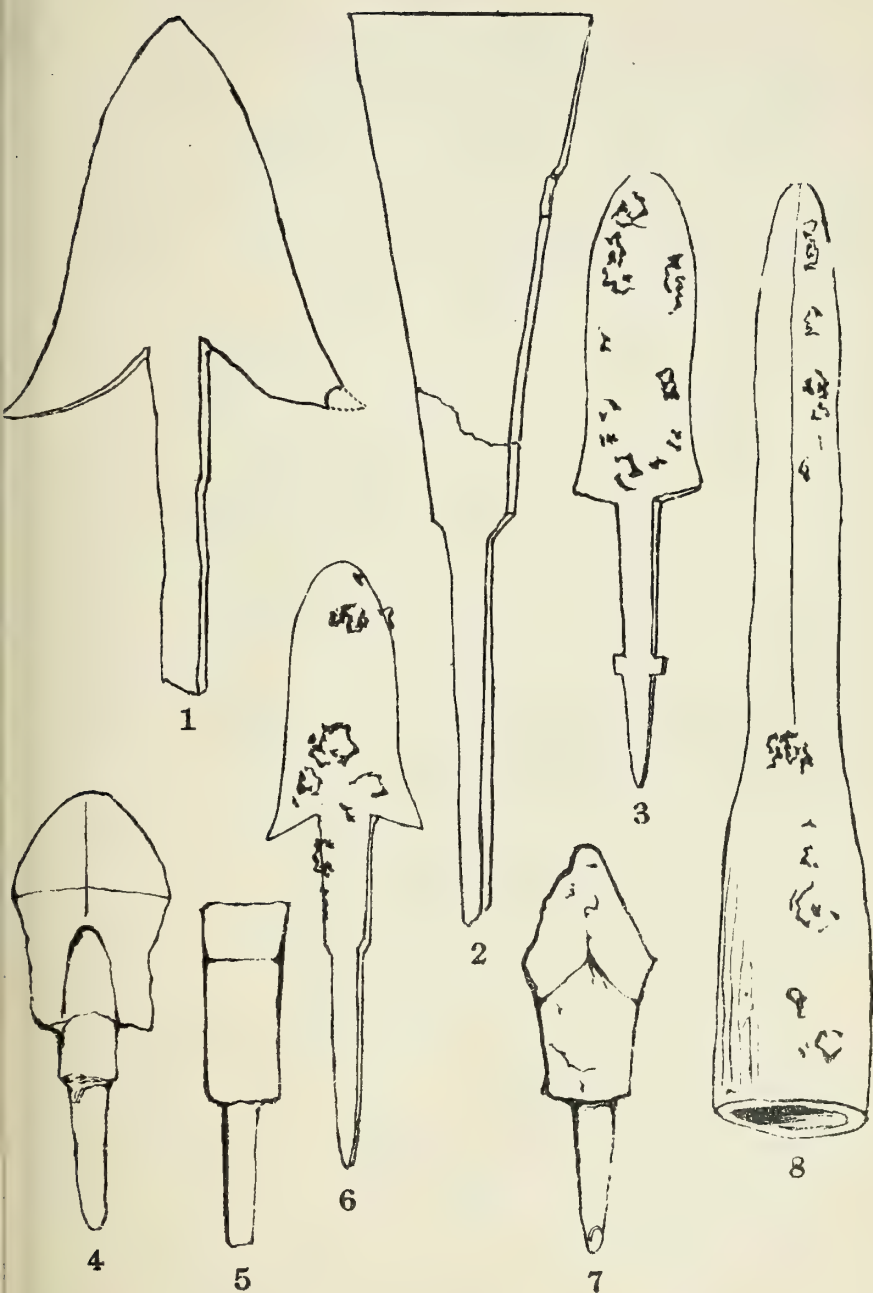
The form seen in Fig. 239 was known in Western Asia, and especially in Persia, where it had, sometimes at least, a cross-guard. No cross-guard, however, has been seen in Japan. Now this form is quite rarely, as I am informed, found in the Yamato tombs of south-west Japan, but mainly in the Kwanto provinces as far as Rikuchu and to the north of them. A specimen exists in the famous collection of the Shōsō-in at Nara, which dates from the 8th century A.D. This is said to belong to the time of the Emperor Kwammu, A.D. 782-806, and was therefore in use at a comparatively late date. It was during the Tang dynasty of China (A.D. 618-907) that the "Tartars were under direct Chinese rule from Korea up to the frontiers of Persia." * This influence facilitated trade between Persia and China, which then flourished by land and sea. It is far from improbable that this type of sword came from Western Asia.

The Yamato sword-guard is nearly always oval and is perforated by holes which are usually of trapezoidal form, Fig. 240, No. 13, but occasionally round or of irregular shape. This guard is commonly of iron, but may be of copper or bronze. The unperforated guard may be of either iron or bronze; when of the latter metal it is usually gilded, No. 11.

Fig. 237 is a scabbard of wood (not complete) covered with sheet copper thickly plated with gold. The decoration is archaic, consisting of punctate

* E. H. Parker's "China, Her History, Diplomacy and Commerce." p. 30. According to this authority the sounding arrow above mentioned is a Turanian (Scythian) invention.

Fig. 262.



ARROW AND SPEAR HEADS.
(From the T. J. Z.)

lines (characteristic of early culture) arranged to form a pattern. This portion is 23 in. long and the breadth of the blade left in the sheath is $1\frac{5}{8}$ in. (4 Cm.)*

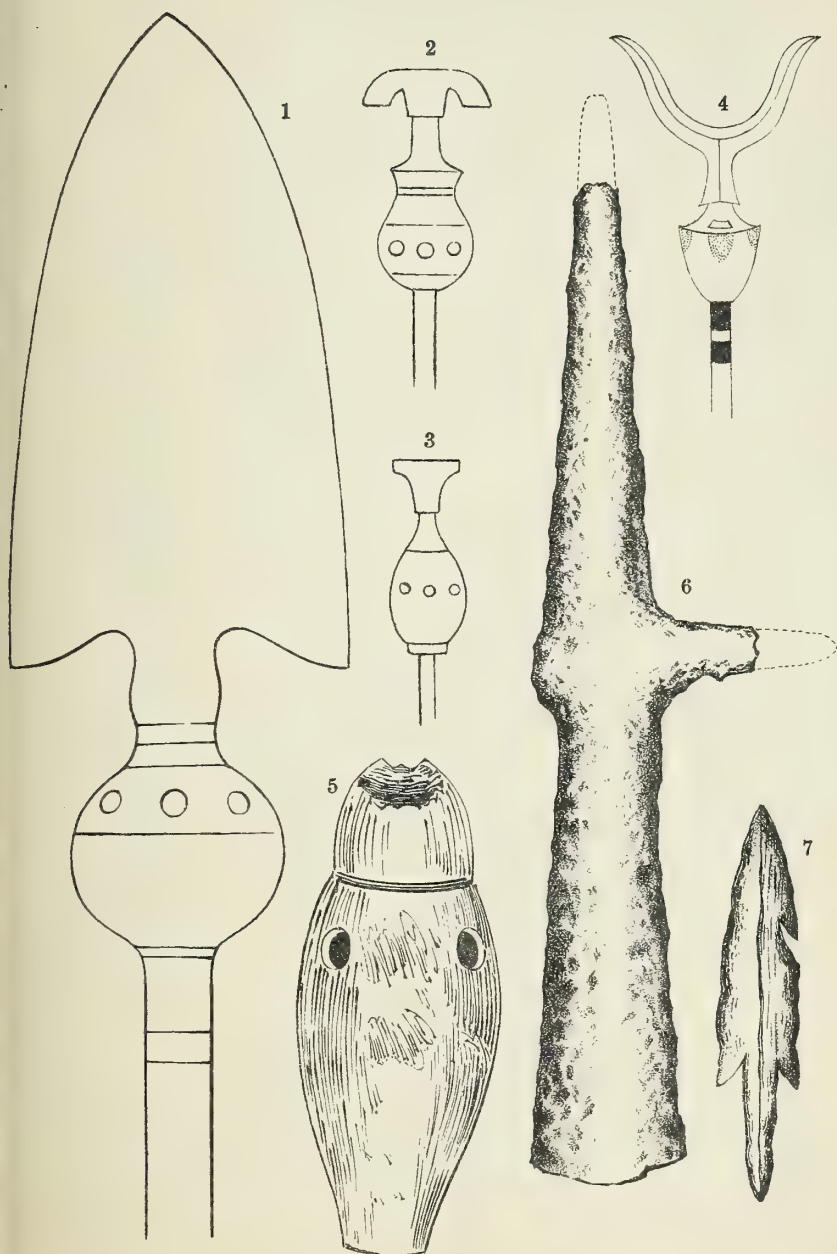
There are many different forms of arrow-heads from the Yamato tombs. Those of bronze are not so varied, Fig. 240, Nos. 1 to 6. They take after the leaf form of the bronze sword. They are not very common and might be considered a survival for funeral use. I am inclined to think that they were in actual service, perhaps confined to important chiefs or leaders. Great importance attached to the first arrow in battle and it is possible that this carefully finished missile played such a part. The iron arrow-heads are of many forms, some of which are seen in Figs. 240, 242 and 262. Nos. 3, 5, 10 and 15 of Fig. 242, Nos. 3, 4 and 6 of Fig. 262 and No. 17 of Fig. 240 look as if they were derived from bronze arrow-heads, Nos. 1 to 6 of Fig. 240. Interesting also are the chisel-headed forms, Nos. 4, 9 and 14 of Fig. 242, and Nos. 2 and 5 of Fig. 262. This type was known in Persia; as iron arrow-heads were used in the Persian army as early as 480 B.C., there was ample time for such to spread to Japan. This type may, however, like the swords above mentioned, be a later importation. Varieties like No. 7, Fig. 242, might have led to the fish-tail or double-pointed type, Nos. 6 and 11; these may have been reflected in the primitive culture (p. 156). In Nos. 1, 2, 5, 10, 12 and 15 of Fig. 242, and in Nos. 1 and 6 of Fig. 262, as well as in Nos. 9 and 10 of Fig.

* This blade was probably over 4 ft. in length, perhaps a two-handed sword.

240, decided forms of barb are seen. The outlined specimens in Fig. 262 are in natural size, from which the formidable dimensions of some of these missiles may be gathered. On the other hand, the heads were sometimes small but of great length, which combined diminished resistance to the air with considerable momentum, e.g., Nos. 14 to 20, Fig. 240. No. 16, for instance, is $4\frac{3}{4}$ in. long from the point to the shoulder. No. 19 with its unilateral barb (see No. 13, Fig. 59) is worthy of attention. Nos. 14 and 15 are intermediate between the pointed and the chisel-ended types. Nos. 22 and 23 appear to have been filed down from other shapes. The *Kaburaya*, or bulbous arrow, known also as *Nari Kabura* or humming bulb (turnip), has been found in two Yamato sepulchres. Its use extended well into the historic era. On the continent it was used as the initial arrow and may have been so employed in Japan. It might also have been used in hunting. The Emperor Yuriaku is said to have shot a boar with a "whizzing barb." * No. 1, Fig. 263 is in the Shoso-in collection at Nara and probably belongs to the 8th century, A.D. Nos. 2 and 3 are taken from the Gunkiku (Considerations on Weapons). The former is in the Horiyōji temple at Nara and the latter in the Tennoji temple in the province of Settsu. No. 4 is copied from the Shakai Jii (Social Dictionary). The hollow bulb, No. 5, is in the collection of the Imperial University. It was found along with eight others in a sepulchre at Jion village in the

* Chamberlain's Kojiki. P. 318.

Fig. 263.



SPEAR-HEAD AND SOUNDING ARROWS.

(Nos. 1 and 5, actual size, Nos. 6 and 7, two-fifths, Nos. 2, 3 and 4, reduced.)

province of Kazusa. It is, as usual,* made of deer-horn and has three holes.

Fig. 264.



Spear-heads are seen in Fig. 243;* Fig. 264 shows one of chisel-ended type. No. 7, Fig. 263, which is barbed, is said to be a spear-head but I suppose it is an arrow-head. A rare variety, also, is that with a horizontal arm, No. 6 of the same figure. It was found with other Yamato relics under the ground in the province of Yamato. The latter was a common form of halberd in China from the Chow dynasty onwards.

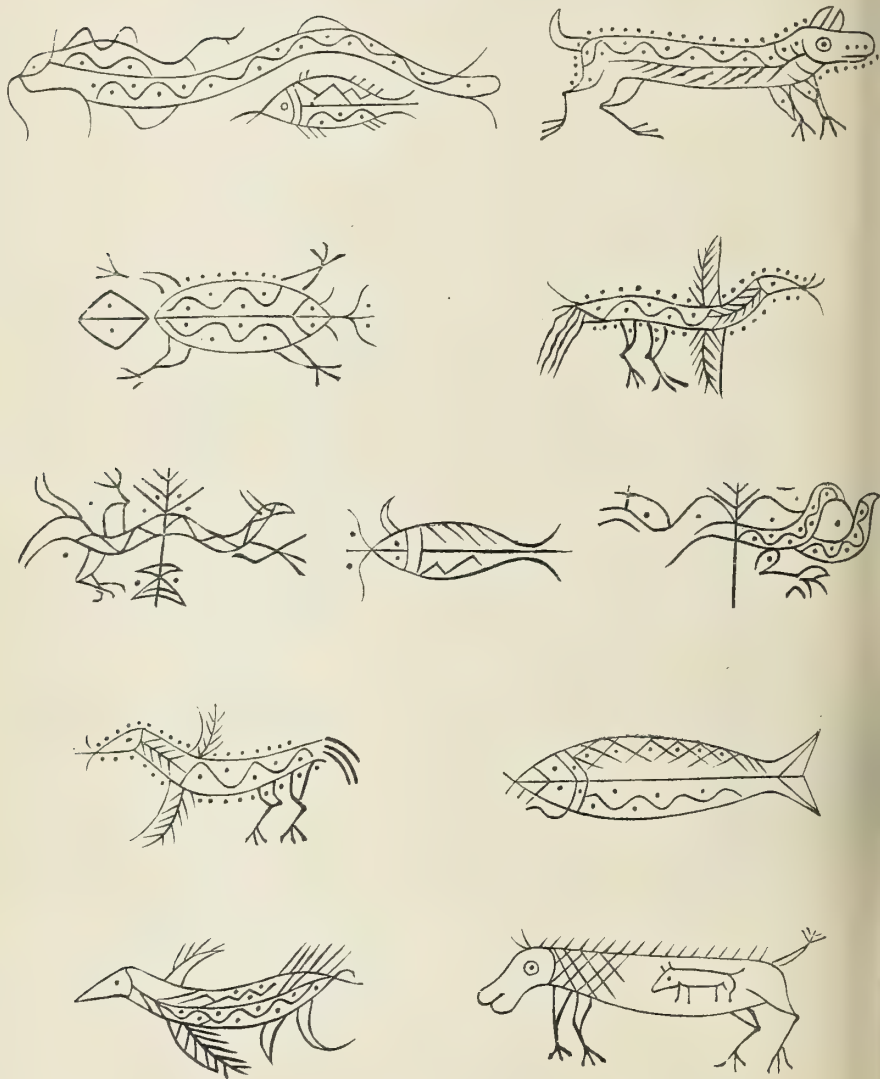
There is a specimen in the Sho-so-in collection at Nara with the horizontal arm curving downwards, like some of the halberds of Europe.

Body armour was made of sheet iron, Fig. 244, well rivetted and fastened in front. It is evident from the ample protection for the back that provision was made against treachery, or for retreat. This arrangement, too, allowed the greatest freedom of movement compatible with a rigid cuirass.

The Yamato helmets exhibit more variety than

* Photographed in the museum case; the lower objects are swords only partially in sight.

Fig. 265.

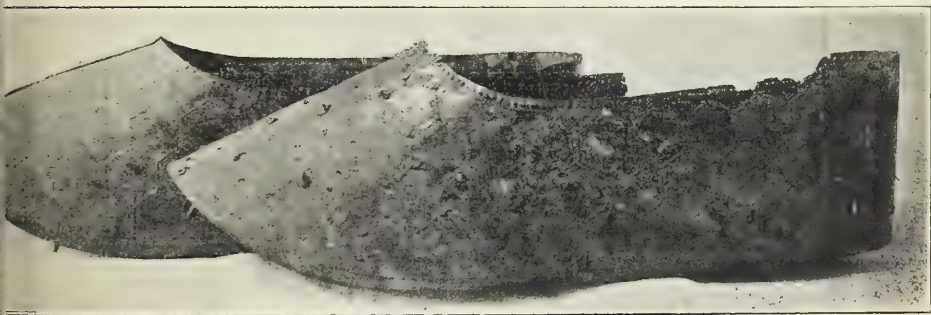


FIGURES ON A BRONZE HELMET.

(Seen in Fig. 246).

does the armour, much of which, from its thinner nature, has vanished into rust. Generally the helmets are made of iron (Fig. 245 and 247), but occasionally of copper or bronze, Fig. 246. They are well rivetted and the front portion, which is generally narrowed in front, forms a projecting peak or snout to protect the face and head. In Fig. 246 an ornamental peak is attached to the bronze helmet. This one is gilt and engraved with punctate and line representations of various animals in crudely archaic fashion, Fig. 265. Among these one sees fishes, birds, (perhaps phoenix), tortoise, snake and dragons; perhaps also a boar and a pregnant sow (probably wild).

Fig. 266.



In Fig. 245 are seen behind the helmet several strips of sheet iron, the remains of the lattice guard, which, as in the Japanese helmets of later days, hung down behind and served as a protection, at least against arrows, while the back, or side, was turned to the foe.

There is some doubt as to how these strips were kept in position. Most likely they were attached to leather, or cloth, as in the present Korean helmet. It is probable that leather and other material was used to give partial protection to the body and head. The arms and legs were protected by guards of copper. Shoes of the same metal, Fig. 266, have been found ; these were probably reserved for horseback or ceremonial use. The decoration is a hexagonal pattern in twisted wire on a plain background, the whole being gilt. Other forms of helmet are found among the *Haniwa*, Fig. 378, from which the intention of protecting the neck is also apparent.

The Yamato warrior belonged to that stage of barbarism in which agriculture and fighting form the careers of the lower and upper classes respectively. Horse furniture and ornaments are found in many tombs, showing the prevalence of horsemanship in Yamato times. When we look at the *Haniwa* horse, Fig. 381, we are struck with the similarity between its trappings and those in present use. The saddle and stirrups, the bridle and bit are practically the same, though from 1200 to over 2000 years have passed since they were designed and used. Figs. 247, 248, 249 and 250, illustrate stirrups used by the Yamato. No. 1, Fig. 247 shows a stirrup with protected toe-piece, designed apparently for battle. Fig. 248 gives a pair of ring stirrups which are occasionally larger than those of the European. Fig. 249 is not markedly different from a common European form ; Fig. 250 has the foot-rest on one side of the ring.

When we turn to the bits we find an even closer resemblance, Figs. 251, 252, 267 and 268. The mouthpiece of the bit is usually jointed in the centre like a common European variety.

Fig. 267.

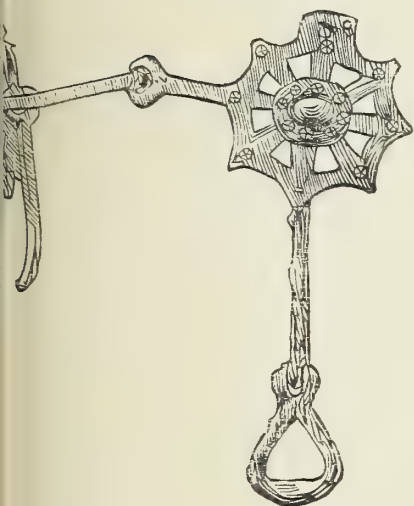
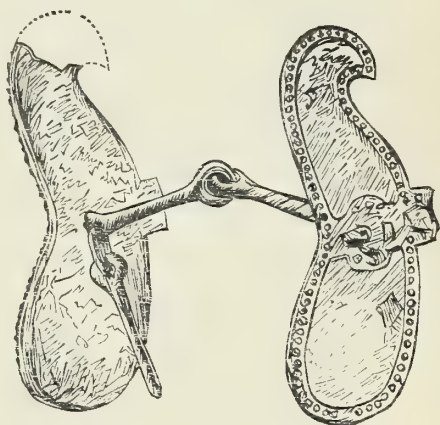


Fig. 268.

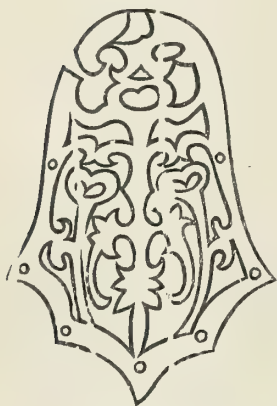


HORSE BITS. (After Gowland.)

In the matter of horse decoration there was much display of metal pendants garnished with silver and gold. Two common forms are given in Fig. 253, Nos. 1 and 3. In these a plate of iron is rivetted to a border of the same metal, the work being exceedingly fine. In No. 1 the iron was thickly plated with gold; in Nos. 2 and 3 each sheet of iron was covered with a thinner one of silver, while the studded border and inner pattern, wrought in

iron, were coated with gold. No. 4, which might have been a pendant or other ornamental portion

Fig. 269.



(T. J. Z.)

of horse furniture, is of hammered iron, coated with copper and then plated with gold. The pendants were sometimes entirely of copper. Fig. 269 gives the outline of a beautiful specimen of perforated gilt copper. Fig. 270 shows three pendants of bronze which I saw at the Saikoji Temple at Kamisato village in Kotsuke. They were said by the priest to have come

from a sarcophagus in the immediate vicinity and are carefully kept as treasures of the temple.* They seemed to be in such perfect condition that I had some doubt whether they were very ancient, and as it was getting dark (it took ten minutes exposure to photograph them) a critical examination was

* No money of any kind has been found in the Yamato tombs. As the first authentic coinage took place in the 1st year of Wado (A.D. 708) one might be tempted to infer that such sepulchres antedate this period. This is true of the great majority, but although, as we shall see, laws were passed prohibiting dolmen erection ere this time, there is no doubt that cave burial and even the construction of modified dolmens occurred after the Wado period. Burial in stone or other coffins placed in mounds, sometimes of considerable size, probably continued for several centuries after the Wado period.

The stone sarcophagus gives better protection than the dolmen and the conditions were as favourable to preservation as they could be in a damp climate like Japan. The priest declared that according to the temple records, a small Buddhist image, which he exhibited, had been removed along with the other relics. This is possible, as Buddhism came to Japan about the middle of the 6th century. But it is an isolated case, if true. They may be set down as exact copies, made probably as substitutes at a time when there was no market for the forgery of such objects.

Fig. 270.

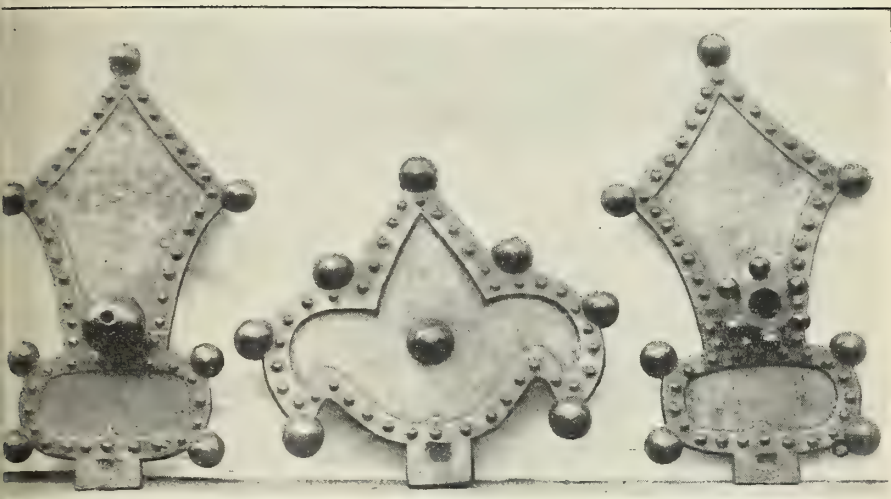
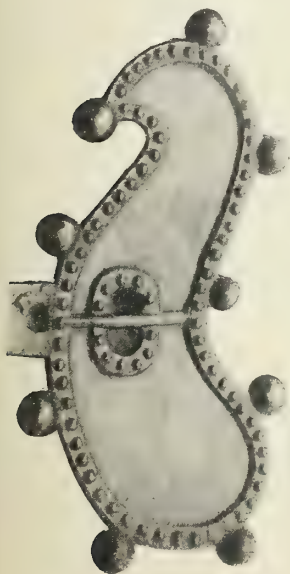


Fig. 271.

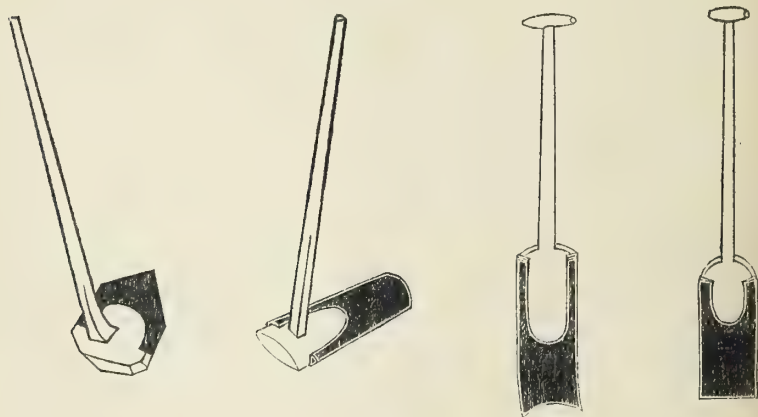


not possible. My experience of the patina on coins inclines me to suppose that these objects are of later make, but are at least some centuries old. These pendants are nearly always found in pairs. Fig. 271 is the cheek piece of a horse bit found with the others. The knobs on the margins of these ornaments are really small bells of the *Suzu* type, of which two are given in Fig. 275. That *Suzu* were attached to the harness is certain. A fragment of a

Haniwa horse in my possession shows the *Suzu* in position; the *Haniwa* horse in Fig. 381 shows somewhat larger bells attached to the chest strap.

No large axes seem to have been found, but certain objects, Fig. 255, might have served as axes, hoes or chisels. These objects are not rare but are usually much disintegrated. Those that I have seen vary in size from about 5 in. by $2\frac{1}{2}$ in. to 3 in. by $1\frac{1}{4}$ in. Although some of these were probably hoes, judging by their light construction, there can be no hesitation in classing the objects in Fig. 256 as the shoes of a spade, or hoe. The flat portion involves the same idea as the copper or bronze hoe-point seen in Fig. 199. The flat and expanded end of a wooden

Fig. 272.*

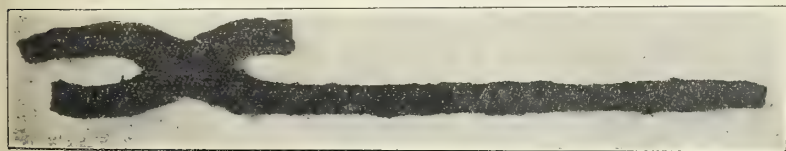


hoe was fitted into the iron guard and a serviceable implement of agriculture resulted. Forms similar to this and to the following are found in European

* From the "Shakai Jii" (Social Dictionary).¹

archaeological collections, e.g. the museum at Dublin. In Fig. 272 are seen some modern agricultural implements which show survival from the type of bronze and iron prehistoric hoes. Although I know of no relic from the tombs in the nature of a hand plough, this contrivance was in use before the end of the dolmen period and is referred to in Chapter 13, P. 574. The Yamato were expert in making various kinds of iron work; the chains, rings and buckles of this period bear a singular resemblance to corresponding objects in Europe at the present day. There is no difference, for instance, between the buckle seen in Fig. 247 and that in modern use. Nails, box handles, hinges and other fittings, though not common, testify that the Yamato used the same devices that have been found so reliable in later times. Among other scarce samples of iron tools, the smith tongs or pincers, Fig. 273, deserve notice. This specimen is kept in the collection of the Imperial University.

Fig. 273.



Bronze mirrors from the sepulchres give the clearest evidence that the Yamato were indebted to China for their specimens of advanced art. Of those which were unquestionably made in Japan the mirrors of the dolmen era are, with few exceptions, more crude than those brought from China, both in quality of design

and workmanship. Before the Wado (Japan Copper) period which began with the accession of the Empress Gemmyo and which celebrated the discovery of workable copper in the province of Musashi, this metal was brought from Korea either through barter, or tribute, or from raids on the principalities on the southern and eastern coasts. The source of supply was fitful and inadequate, indeed copper was probably a more or less precious metal. This may partly account for the few signs of a bronze age in Japan. Prof. Miyake has remarked that copper was presented to the Emperor Bunbu (Mommu) in A.D. 698, 10 years before the Wado period, from the provinces of Inaba and Suwo, and that during the reign of Empress Suiko, about a century previous, many bronze images of Buddha were made in Japan.* In China, the art of working in bronze had been in existence for 2500 years before the time of the Empress Suiko and had attained a high degree of perfection during the Han Dynasty. According to S. Teraishi, the mirror was regarded by the ancient Chinese as a symbol of virtue and was used at least as early as the T'sin Dynasty, 255 B.C. "The Han mirror was decorated with the dragon and phoenix, with marine animals such as the sea-horse, with clouds, and sometimes carried ancient characters. It was manufactured principally at Yangchou. According to Chinese custom in these days, mirrors, sometimes hundreds, were buried with the dead. They were sent by the friends of the deceased as amulets against decay."†

* K. K. Vol. 2. No. 12.

† T. J. Z. No. 83.

Not only mirrors of bronze but also of iron were buried in the Chinese tombs.

The following examples have all been taken from Japanese sepulchres, but three of them are by artists of the Han dynasty, viz; Figs. 257, 258 and 259. The decoration of Fig. 257 is a delicate tracery in low relief of a highly conventionalised motive, perhaps a dragon, possibly a phoenix, with borders of dots, radiating lines and lozenge pattern. It is 7 in. (18 Cm.) in diameter. Fig. 258 represents a group of dragons. The diameter is $16\frac{3}{8}$ in. (42.5 Cm.). Fig. 259 is a beautiful specimen of bronze decoration. Within a border of triangular patterns and radiating lines is a fine tracery of low relief lines, set off by rectangular and Tau-like figures. The diameter is $10\frac{3}{4}$ in. (28.3 Cm.). Fig. 260 is a rougher casting of Japanese manufacture with dragon concepts in the centre and triangle and ray decoration outside. It is garnished with five *Suzu*, or jingle bells, which are not found on the mirrors of ancient China; diameter is $3\frac{5}{8}$ in. (9.4 Cm.) Some of the dolmen mirrors, presumably made in Japan, are of smaller dimensions. One which I obtained in Chikuzen is not more than 2 in. (5 Cm.); another, from the same province, is $3\frac{3}{8}$ in. (9.6 Cm.) in diameter. With the exception of a punctate border, neither of these are decorated, probably a more common occurrence with the Japanese than the Chinese mirror of this era. The mirror seen in Fig. 261, with its curiously archaic decoration, is an object of interest. K. Takahashi thinks that it is of Japanese manufacture. He tells me that although some Japanese-made mirrors have a fairly broad rim there

is no Chinese mirror known to him without a wide border. In this case the main decoration comes close to the margin, and the same motive has been seen on a piece of stag-horn from a Yamato tomb. He ascertained that this pattern has not been seen in the large collection of mirrors at Mukden nor, so far as is known, in others of Chinese make.

In the "Koku-kwa-yo-ho," or Relics of National Fine Art, there is illustrated a round mirror of 8 $\frac{3}{4}$ in. diameter, exquisitely enamelled, or perhaps damascened, with a decoration of flowers and birds. Another, of 16 in. (41 Cm.) is delicately engraved and damascened with floral decoration and representations of the phoenix, peacock and other birds, the central panel containing clouds, rocks, trees with birds, dragons and a sitting figure. Yet another, with an eight-scalloped border, is 17 $\frac{1}{2}$ in. (45 Cm.) in diameter. These belong to the Imperial Household Department and probably date from the Nara period, A.D. 710-808.

The mirror was anciently the symbol of the sun and was an object of worship. Even now it is held sacred and under the name of Ame Kakasu-no-Kami "religious honours are paid to this mirror or its representative." * When the Heaven-Shining-Great-August-Deity retired into the Heavenly Rock-dwelling, the "eight hundred myriad Deities" commanded the smith Amatsu-mara and "her Augustness Ishi-kori-dome to make a mirror." † The Nihongi says,

* Aston's "Shinto, The Way of the Gods." p. 72.

† Chamberlain's "Kojiki" p. 55. According to an account in the Nihongi (Aston's translation, Vol. I, p. 47), this was undertaken by Ama-no-nuka-do-no-Kami, the ancestor of the *Be* of mirror-makers. Another variant, from the same source, is that Ono-kori-dome was the ancestor in question.

Izanagi, the male creative Deity "took in his hand a white copper mirror, upon which a deity was produced from it called Oho-hirume no Mikoto. In his right hand he took a white copper mirror, and forthwith there was produced from it a God who was named Tsuki-yumi no Mikoto. Again while turning his head and looking askance, a God was produced who was named Sosa no wo no Mikoto. Now Oho-hirume no Mikoto and Tsuki-yumi no Mikoto were both of a bright and beautiful nature and were therefore made to shine down upon heaven and earth. But Sosa no wo's character was to love destruction and accordingly he was sent down to rule the nether land."* It is this myth which forms the basis of the belief that the mirror is the *Shintai* or "god-body" of the Sun Deity. To give a clear conception of the belief underlying the sacred character of the mirror in ancient Japan, I cannot do better than quote from "Shinto, The Way of the Gods" by W. G. Aston, a work of the highest scholarship and lucidity, the following passages:—†

"The *Shintai* of the Sun-Goddess is a mirror, sometimes called *Yata-kagami*,‡ or eight-hand-mirror, "probably because it had a number of leaves or projections round it. It is also called the *Hi kagami* (sun-mirror) or *Hi-gata no Kagami* (sun-form-

* Aston's Nihongi. Vol. I. p. 20. We have here a Triad of Sun, Moon and Elemental Deities. The myth is of later origin than that which ascribed the birth of the Sun and Moon to the left and right eyes of Izanagi; it is evidently based on the analogy between the mirror and the eye, often referred to in the Manyōshū."

† P. P. 134-5.

‡ K. Takahashi says that Yataka may refer to the representation of eight heads on ancient mirrors, of which there are two specimens in the Tokyo Imperial Museum. But other explanations are possible.

“mirror). It appears from the *Nihongi* that
 “similar mirrors were honoured in Korea. Ama no
 “hikoko is stated to have brought a sun-mirror
 “from that country in B.C. 27.

“The mythical notices of the *Yatakagami* represent
 “it in various aspects. It is mentioned in the *Kojiki*
 “among the offerings made to the Sun-Goddess to
 “propitiate her after her retirement to the Rock-cave
 “of Heaven. In the same passage Uzume calls it ‘a
 “deity more illustrious than thine (the Sun-Goddess’s)
 “augustness!’ When the Sun-Goddess and Musubi
 “sent down Ninigi to rule the earth they gave him the
 “*Yatakagami*, saying:—‘Regard this mirror exactly
 “as our *Mitama* and reverence it as if reverencing us.’
 “The *Nihongi* adds:—‘Let it be with thee on thy
 “couch and in thy hall, and let it be to thee a holy
 “mirror.’ The *Yatakagami* is frequently spoken of
 “as if it were the Sun-Goddess herself, and is even
 “called the Great God of Ise! Another sun-mirror
 “received an independent worship at Kumano. The
 “*Nihongi* says, under the date B.C. 92:—
 “‘Before this the two Gods, *Amaterasu no Oho-*
 “*Kami* and *Yamato no Oho-kuni-dama*, were wor-
 “shipped together within the Emperor’s Great Hall.
 “He dreaded, however, the power of these Gods, and
 “did not feel secure in their dwelling together. There-
 “fore he entrusted *Ama-terasu no Oho-kami* to
 “*Toyoseki-iribime no Mikoto* to be worshipped at
 “the village of *Kasanuhi*, in *Yamato*.’ Here we must
 “understand that it was the sun-mirror which was
 “sent away from the palace. It was subsequently
 “enshrined at Ise, where it is to this day preserved

“with the greatest care and reverence. It is about eight inches in diameter.”

A “seven-little-one” (*nanatsuko*) mirror is mentioned in the *Nihongi*.^{*} This was possibly a decoration of seven mirror-shaped discs (conceivably representing planets or stars, which on ancient Chinese coins are circular). *Komochi* or child-owning[†] objects were apparently regarded as felicitous; for example vessels of pottery, and *Magatama*, which will presently be described. The *Nihongi* also relates the suicide of an Imperial Princess, under the date A.D. 459, who being slandered had buried a mirror near the place of her death. The rationalising account goes on to say “a rainbow appeared, like unto a serpent, four or five rods in length. When they dug the place from which the rainbow sprang, they found the divine mirror, and at no great distance off, they discovered the Imperial Princess’s body.”[‡] The burial of the mirror may be taken as a demonstration on the part of the Imperial Princess of her purity and innocence. A mirror wrapped around with human hair has been found, an offering, perhaps, the import of which can only be vaguely surmised. No mirror of the Tang dynasty has been found in a Yamato sepulchre.

In the provinces of Yamato and Kotsuke vases and bowls of bronze have been found in the tombs. That in Fig. 254 is a cinerary urn from Yamato. Nos. 1 and 2, Fig. 274, are simple and covered bowls of gilt

^{*} Aston’s Translation, Vol. I. p. 251.

[†] Or “being with young.” Also *Mochi*, “holding in the hand.” Brinkley’s “Japanese-English Dictionary.”

[‡] Aston’s Translation, p. 341.

bronze from Kotsuke. They are very rare and still more so are vessels of glass of which I know only one instance, i.e., that found in a *Misasagi* attributed to the Emperor Nintoku A.D. 313-39. Beads of glass, however, are common and *Magatama* of the same material are frequently found in the Luchus.

Personal ornaments of metal consist chiefly of rings. These are of two kinds, closed and open. The closed rings of copper or bronze were mainly used as bracelets, Fig. 275, No. 5. Such rings were sometimes, but not always, gilded. Occasionally these bracelets or bangles were adorned with *Suzu* or jingle bells, No. 1.* "Wrist bells" are spoken of as in vogue during the reign of the Emperor Richiu, A.D. 400, according to the chronology of the *Nihongi*,† and a poem attributed to the time of the Emperor Anko under the date 453 A.D., mentions a "garter-bell." When Moriya no Ohomuraji trembled while delivering the funeral oration of the Emperor Bidatsu, A.D. 595, "the Oho-omi, Mumako no Sukune, laughed and said 'He ought to have bells hung upon him.' From this small beginning," adds the *Nihongi*, "the two ministers conceived a hatred of each other."‡ Reference is also made in the "*Kojiki*" and *Nihongi* to *Suzu* being attached to a dog and to a falcon.

In Fig. 275, No. 3, is a unique specimen of a *Suzu* in the form of the *Magatama*, which was probably intended for personal decoration. The usual form of *Suzu* has the surface divided into 8 facets

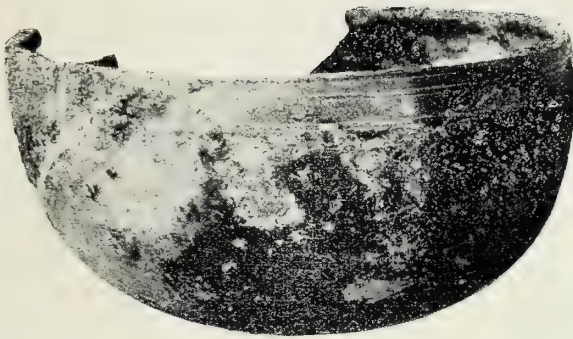
* I have little doubt that the *Suzu*, which is a globular bell with detached clapper in the shape of a pebble or metal ball, confined by its narrow slit, is the survival of the use of nut husks tied to wrists or ankles in the New Hebrides and elsewhere, in order to give rattling or jingling sounds.

† Aston's *Nihongi*. pp 301, and 329.

‡ Ibid. p. 105.

Fig. 274.

1



2



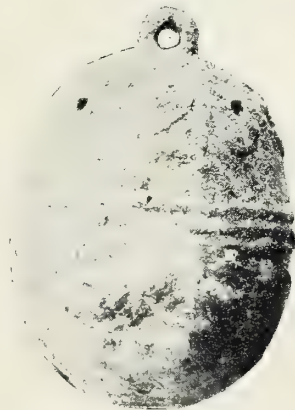
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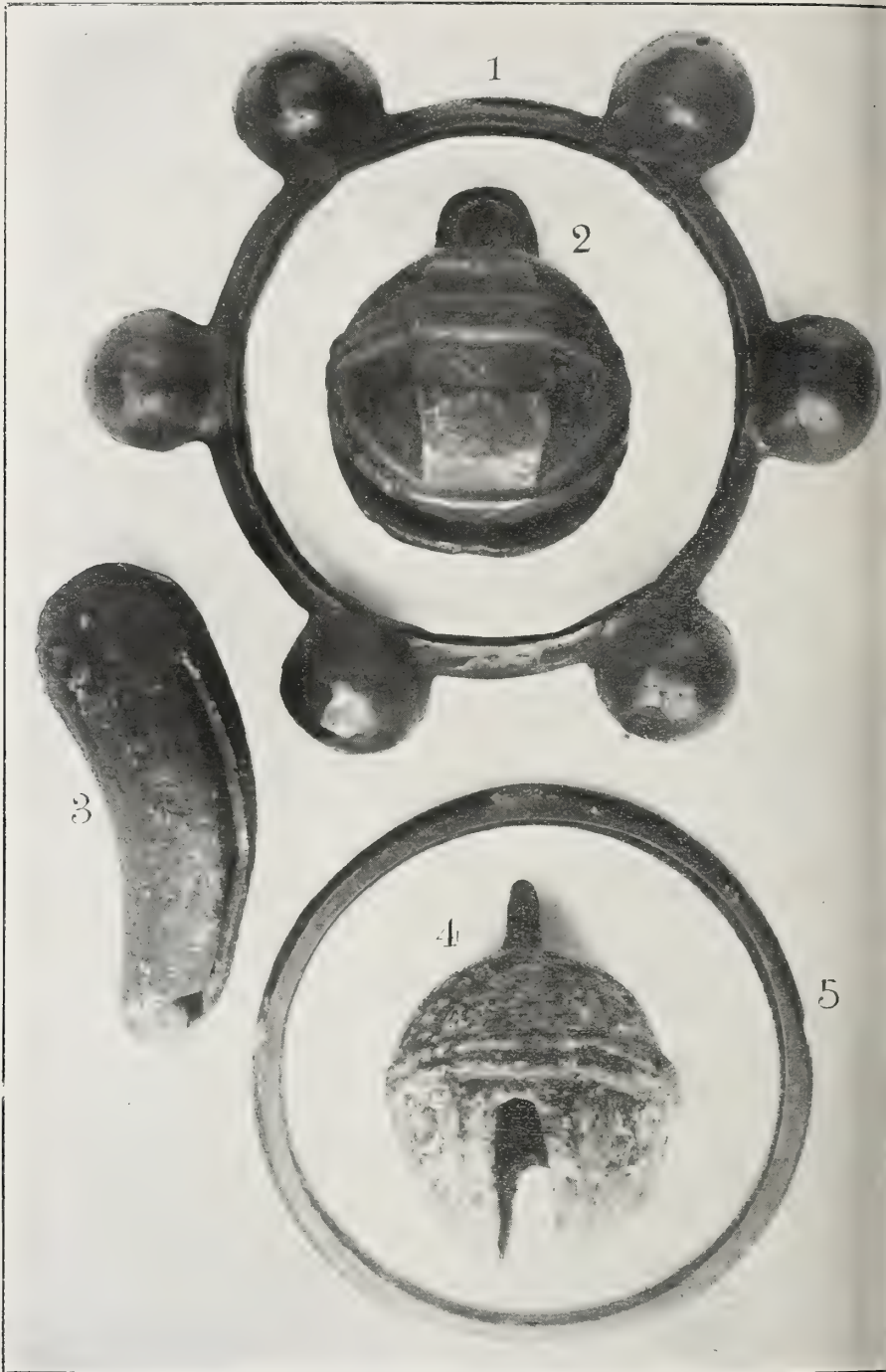


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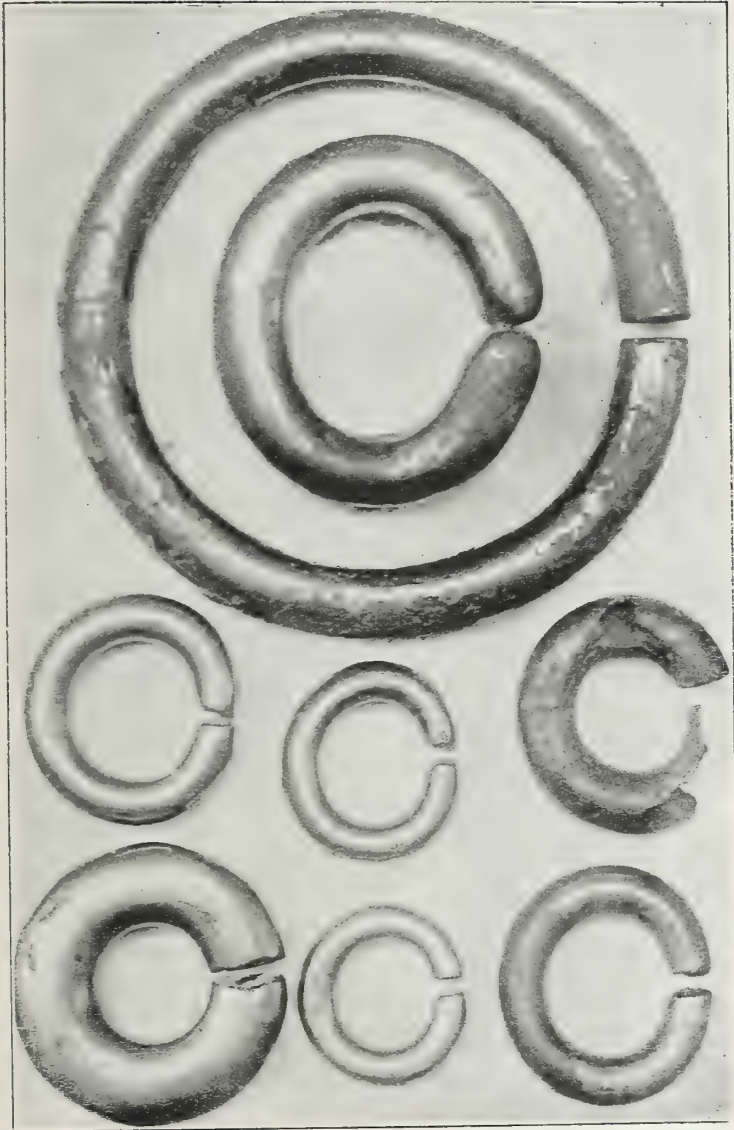




BRACELETS AND BELLS.
(Actual size.)

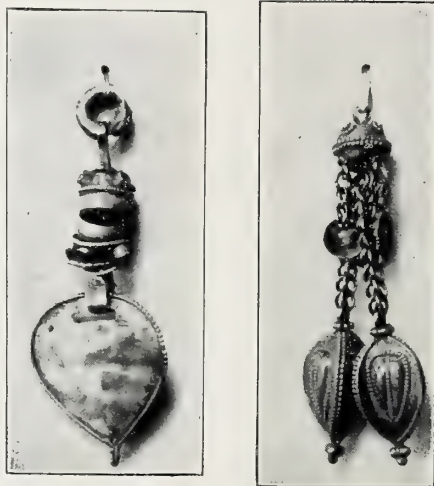
Fig. 276.

1



GILDED PENANNULAR RINGS.
[Actual Size.]

Fig. 277.



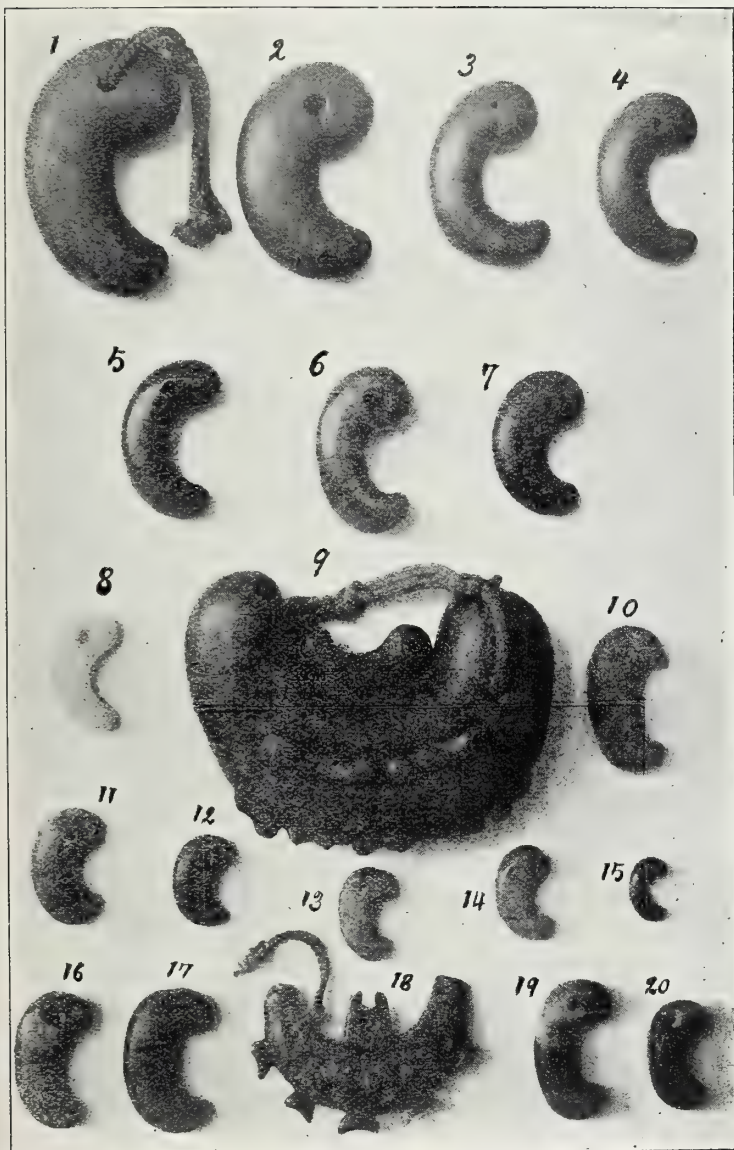
TOKYO IMPERIAL MUSEUM.
(About Two-thirds.)

Fig. 278.



TOKYO IMPERIAL MUSEUM.
(About One-half Size.)

Fig. 279.



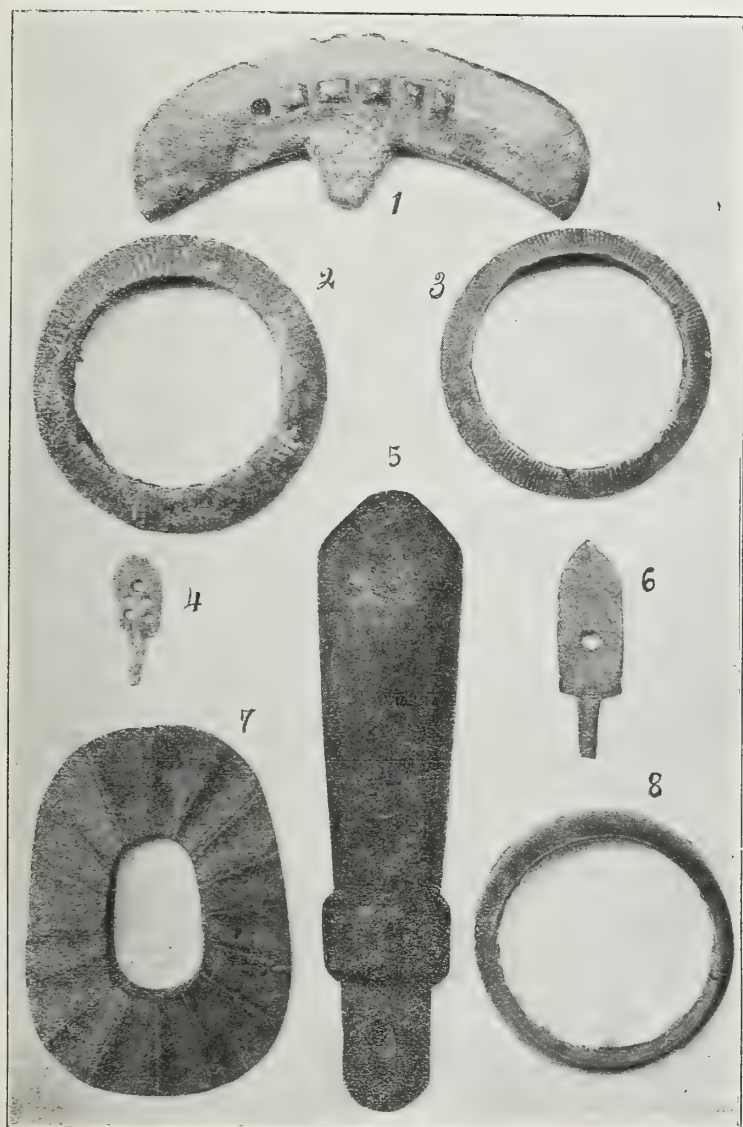
MAGATAMA.
(Half Size.)

Fig. 280.



KUDATAMA AND OTHER BEADS.
(Actual Size.)

Fig. 281.



YAMATO STONE RELICS.
(Half Size.)

Fig. 282.

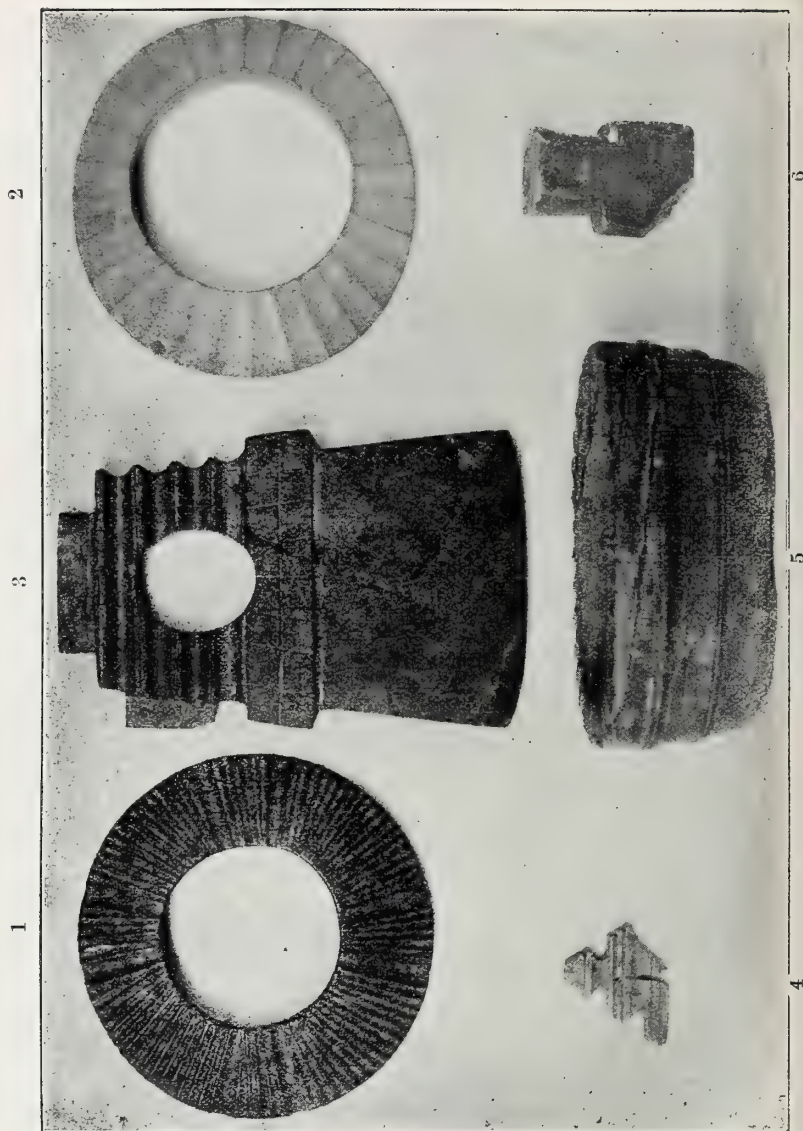
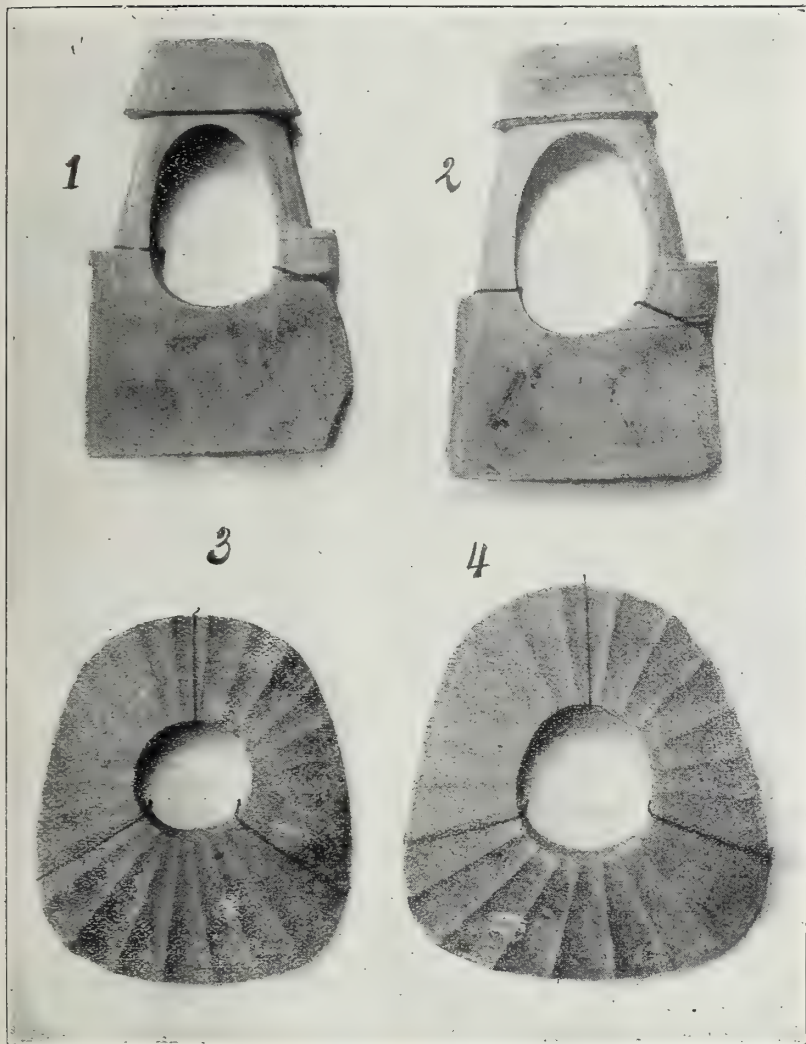


Fig. 283.



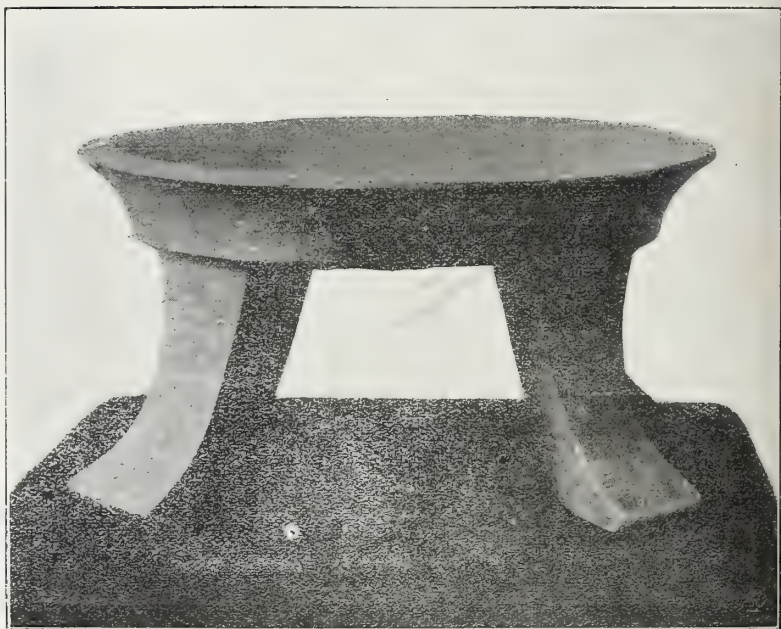
YAMATO STONE RELICS.
TOKYO IMPERIAL MUSEUM.
(One-third Size.)

Fig. 284.



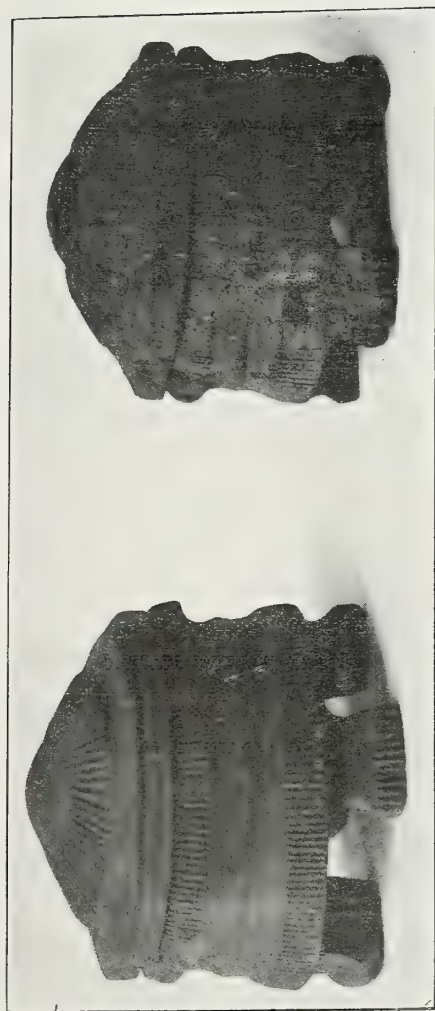
TOKYO IMPERIAL MUSEUM.
(Five-Sevenths.)

Fig. 285.



TOKYO IMPERIAL MUSEUM.
(Half Size.)

Fig. 286.



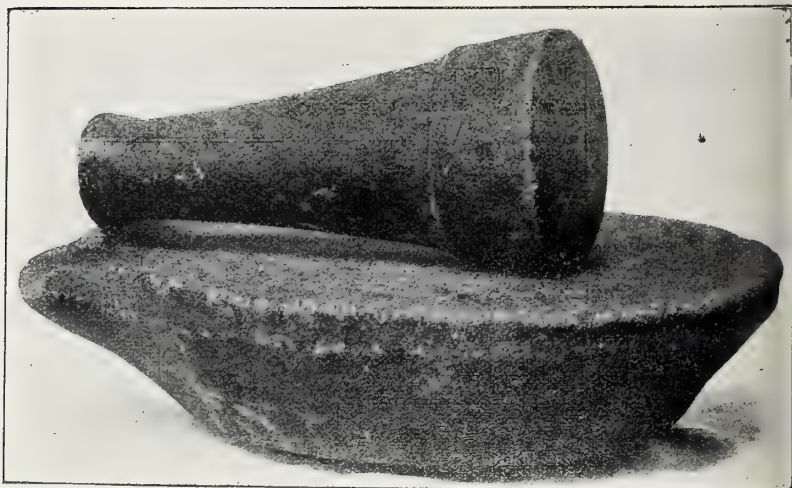
TOKYO IMPERIAL MUSEUM
(Five-Sevenths.)

Fig. 287.



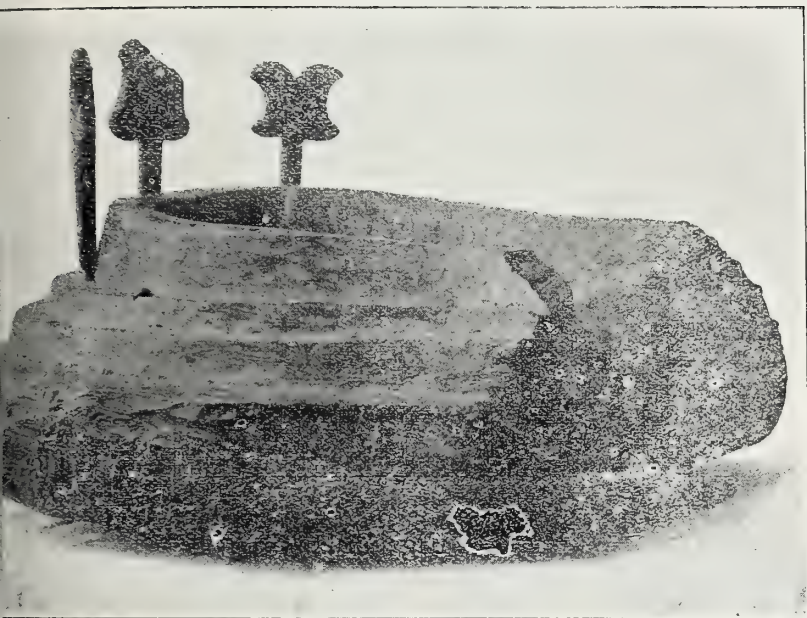
IMPERIAL UNIVERSITY COLLECTION.
(Half Size.)

Fig. 288.



TOKYO IMPERIAL MUSEUM.
(Not Quite Half Size.)

Fig. 289.



TOKYO IMPERIAL MUSEUM.
(One-third Size.)

Fig. 290.



IMPERIAL UNIVERSITY COLLECTION.
(Half Size.)

Fig. 291.

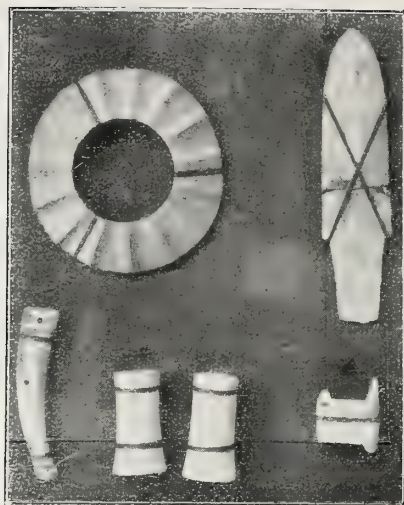


Fig. 292.

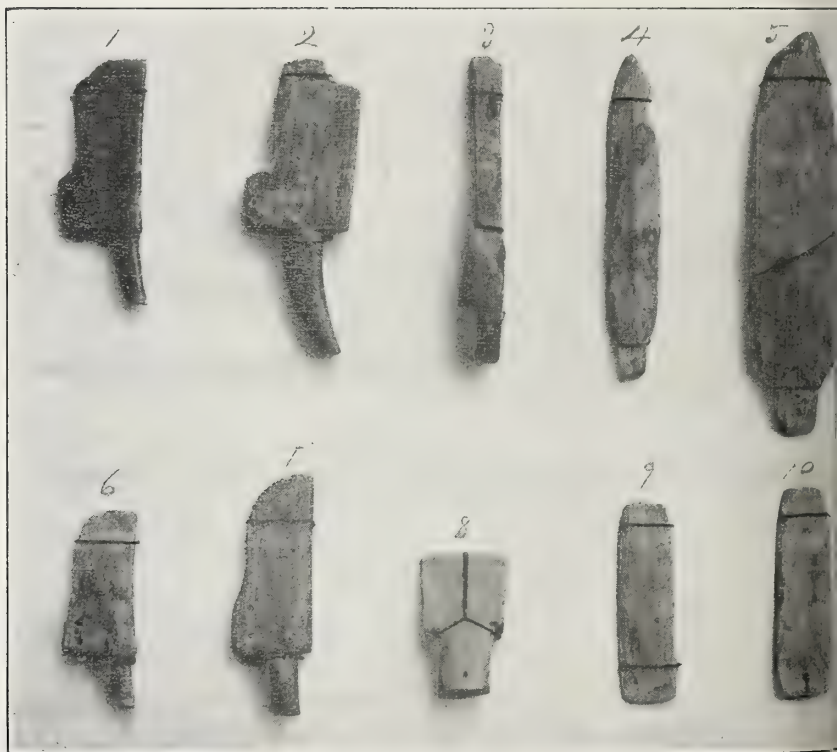


Fig. 293.



Fig. 294.

Fig. 295.

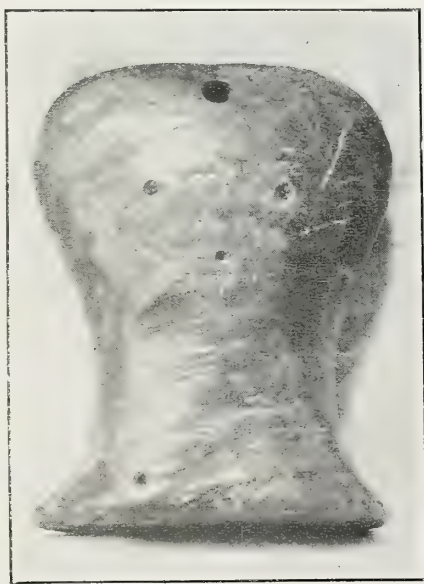
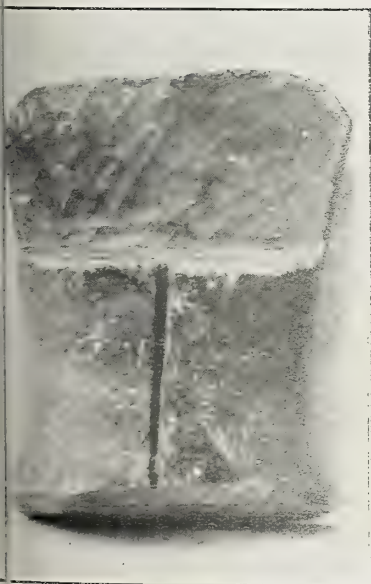
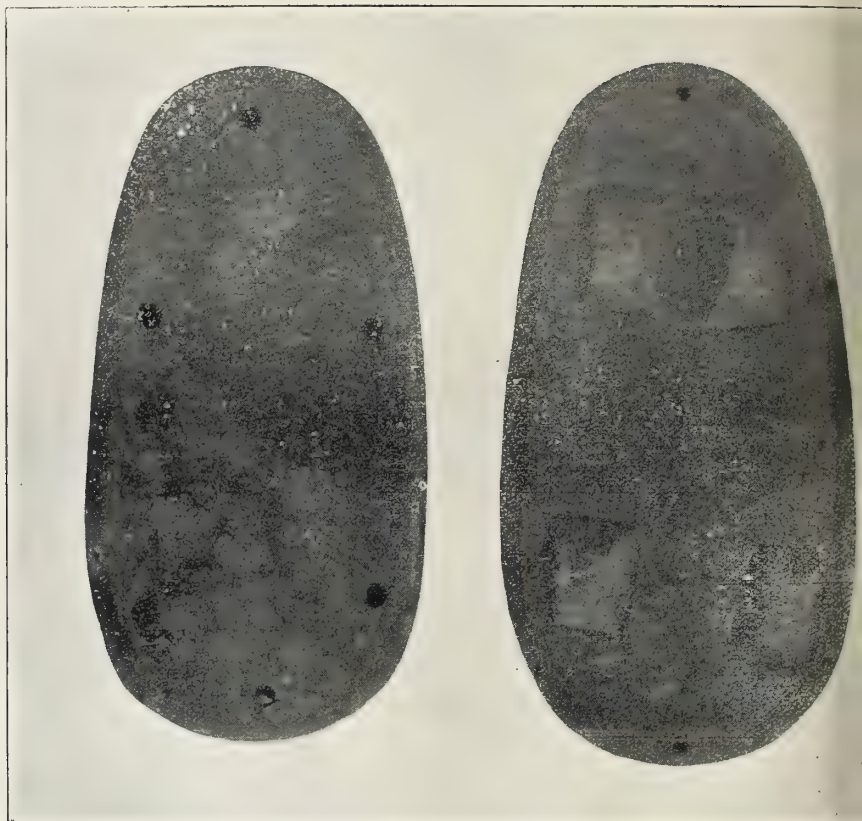


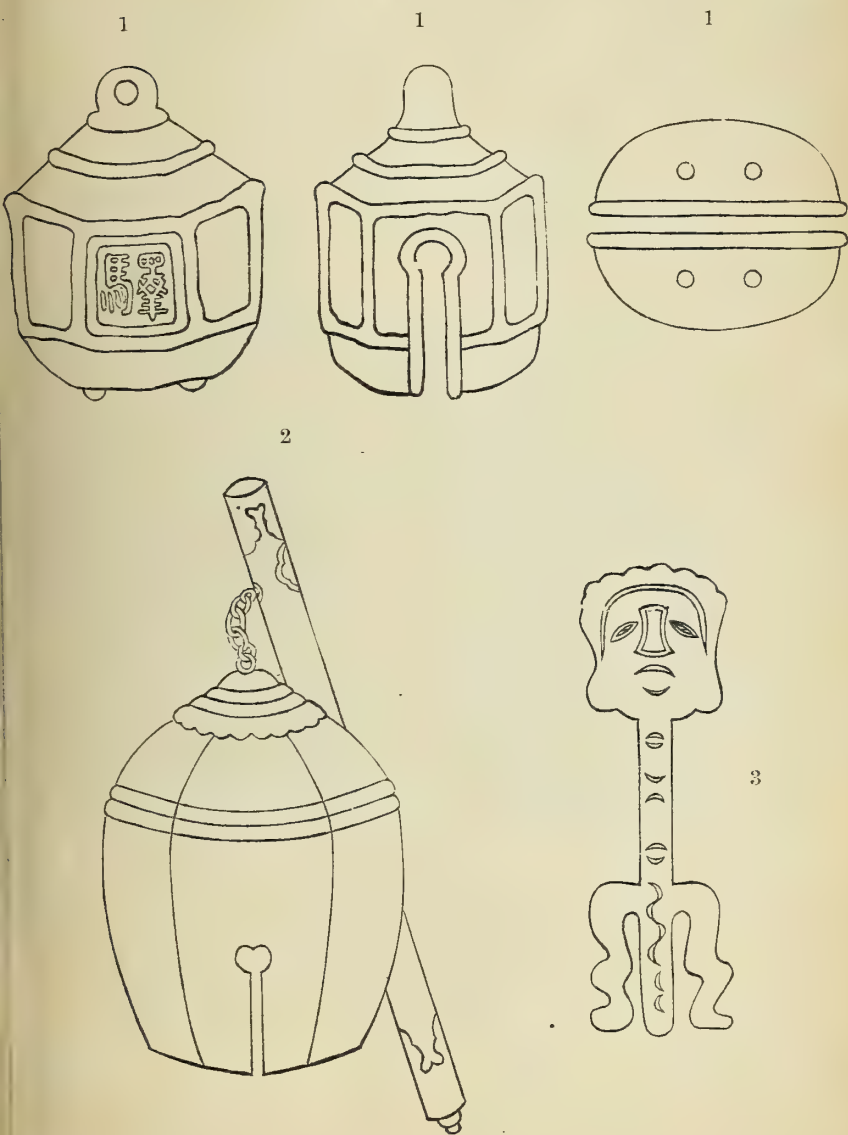
Fig. 296.



TOKYO IMPERIAL MUSEUM.

(About Three-fifths.)

Fig. 297.

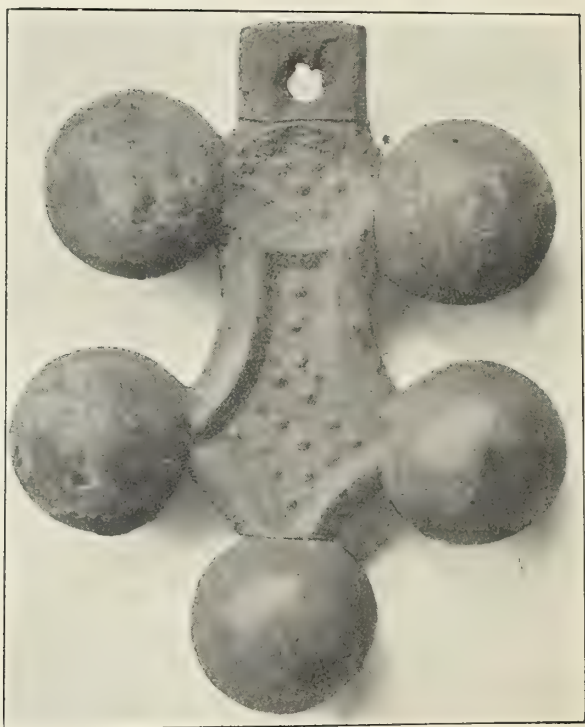


EKIREI.

(Nos. 1 and 2 from Shakai Jū, No. 3 from Kōko Kai.)

with slightly projecting lips, Fig. 275, Nos. 2 and 4, but sometimes these are of considerable size, Fig. 274, No. 3. They are often perforated with a small hole which might have been done to assist the tone.* Perhaps those in Fig. 274, Nos. 4 and 5, were attached to horse gear. *Suzu*, said to closely

Fig. 298.



resemble these, Fig. 297, were used for a curious purpose, namely as a government token enabling

* Present, but not seen in Nos. 2 and 4, Fig. 275. Evident in Fig. 274.

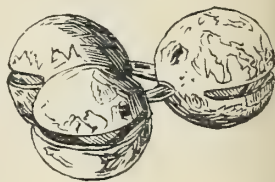
nobility and officials on tour to requisition horses for themselves and suite. It was called *Ekiro-no-suzu*, or *Ekirei*, "post bell," and is said to have been marked with notches, the number of which indicated how many horses were permitted. No marked bells of certain origin have been found. Tickets were also provided; but these were for inferior mounts. The Nihongi says, under the ordinances of the Emperor Kotoku, A.D. 646, "The number of special or ordinary post-horses shall in all cases follow the number of marks on the posting bell tokens." * M. Kurokawa † says that in the "Rei-gikai" or Explanation of Laws (of the period of Taiho, A.D. 701-4) it is stated that the number of horses available for officials was as follows:—For a member of the Royal family, or a person of the first rank, a 10 notched bell and 30 tickets were given, an equivalent of 40 horses; For one of second or third rank, a 6 notched bell and 12 tickets, for the fifth rank, a 5 notched bell and 10 tickets, for the sixth, seventh, or eighth rank, a 3 notched bell and 4 tickets, for one of lowest rank, a 2 notched bell and 3 tickets were allowed. A peculiar form is seen in No. 3, which, according to M. Kurokawa, was reputed to have been used in the province of Hitachi and is now in the possession of the Tokugawa family. This gentleman tells me that this specimen has not been absolutely identified with the ancient posting bell. He also says that post bells, modelled on one

* Aston's Translation, Vol. 2. p. 207.

† K. K. Vol. 5, No. 3.

found in the island of Iki, were used during the Tokugawa period. Aston thinks that the posting bell resembled Fig. 298, but I can find no evidence of this. This last illustration and Fig. 299 represent unusual mountings of *Suzu*.

Fig. 299.



(T. J. Z.)

The penannular or open ring, Fig. 276, is of considerable interest. It was in vogue in western Asia, Africa, and among the Celtic people of Europe. The Irish specimens have usually a knob at either end of the open ring, but not invariably. The European rings were of solid gold or silver and are believed to represent definite weights, to be sometimes, indeed, a form of money. Egyptian rings were sometimes plated. The Yamato rings are very rarely of solid gold or silver. These metals were too scarce. The rings are generally of copper, covered with a fairly thick plating of beaten gold, Nos. 1 to 7, or silver, No. 8. Sometimes the surface gold is alloyed with silver and was perhaps also applied as an amalgam. Occasionally these rings are hollow, No. 5; rarely are they flattened, No. 6. The large ring is nearly the diameter of No. 5 in Fig. 275 and was in all probability a bracelet. There is some dubiety about the smaller rings but we cannot be wrong in saying that they were sometimes used as ear-rings. Various *Haniwa* figures in Chapter 12 show such rings in position. We cannot positively say that they were always suspended from the ear.

The Egyptians fixed similar ornaments to the wig as well as to the ear. But the weights of some, namely, 22.75 Grms. for No. 3, 15.3 Grms. for No. 4, 59.75 Grms. for No. 6, 11.75 Grms. for No. 7 and 24 Grms. for No. 8, are not prohibitive when we consider the stage of culture at the time they were worn. They seem to have been, as is the case with some ear-rings at present in China, suspended by a finer ring.* Some writers think that such rings were used for adjusting the sword to the belt or for attachment to the dress. No. 5, which is hollow, was probably an ear-ring.

In Fig. 277 are shown pendants which were attached to rings like the above and which were most probably worn in the ear. Nor is it at all unlikely that the chain pendants, Fig. 278, were worn in the ear. These elegant ornaments, were found in pairs though only one of each kind is here exhibited. The workmanship would pass for that of a modern goldsmith. Most likely they were imported from China or farther west. Various researches, and especially the recent work of M. A. Stein, in Chinese Turkestan, have proved that Græco-Indian art had reached central Asia and passed within the sphere of Chinese influence by the time of the Later Han dynasty. It may be that these trinkets were brought by merchants from the west along the old caravan route, or by sea during the Persian control of Phœnician commerce, and exchanged in China for silks or other commodities.

* See Fig. 368 in Chapter 12.

Most prominent among the articles of stone which have been found in the Yamato tombs, are the comma shaped objects previously referred to as *Magatama*. I have put forward the suggestion that the word is derived from *Maga*, curved, and *Tume* the archaic Yamato word for the present *Tsume*, a claw. Perhaps the word *Tama* a "jewel" had passed from *Tume* to signify a stone ornament or amulet of this shape and from thence to the general acceptance of jewel, before being linked to *Maga*, "curved." Association with beads of stone in a necklace would lead to the name being applied to a ball, as technique gradually perfected the shape which we now recognise by that name. In small gravel one often sees curved or bent stones bearing more or less resemblance to the talons of animals, which, to the primitive mind, would be suggestive of their qualities, and which, by an elastic analogy stretched out to grasp vaguely at the unknown, would lead to their employment as fetich or as amulets. That the adoption of natural stones and their transformation into *Magatama* resembling those of the Yamato, took place in the primitive culture of Japan is evident from the illustrations that have already been presented, Figs. 161 and 162. A similar evolution may be supposed to have taken place in Korea, where the tiger has from the earliest known times been regarded as a deity and where its claw is an amulet of the highest efficacy. Whether this form originated in central or western Asia, where this animal enjoys the same reputation, is a question that is not yet settled. I understand that the *Magatama* has not yet been found in China.

There are several references to *Magatama* in the Kojiki and Nihongi. When Amaterasu, the Heaven-Shining deity, was visited by the storm god Susa no wo no Mikoto, His-Swift-Impetuous-Male-Augustness, "she twisted an augustly complete (string) of curved jewels eight feet (long),—of five hundred jewels."* In both these classics there are descriptions, varied in the case of the Nihongi, of the birth of lesser deities from the "crunching" or other manipulation of the *Magatama*. The name Yasaka gem might have been conventionalised from the Yasaka or "eight feet"† length of the string of *Magatama*. But this is a debatable question.

When Amaterasu retired in disgust into the Sacred Cave of Heaven, the mirror and the *Magatama* were suspended on the branches of a "true Sakaki tree" (*Cleyera Japonica*). The *Magatama*, the sword and the mirror are, in a sense, the regalia of Japan. The Nihongi tells us that Itote hung on the upper branches of a Sakaki tree "Yasaka jewels, on the middle branches white copper mirrors, and on the lower branches ten-span swords, and coming to meet the Emperor (Chiuai) at Hikejima in Anato, presented them to him. In doing so he addressed the Emperor, saying:—'As to the things which thy servant dares to offer, mayest thou govern the universe with subtlety, tortuous as the curvings of the Yasaka Jewels; may thy glance survey mountain, stream and plain, bright as the mirror of white copper; mayst

* Kojiki, Chamberlain's Translation, p. 46.

† *Ya* originally meant many and this might have been its signification in the expression *Yasaka*. But it also meant a wheel spoke and might possibly refer to the radiating lines on some of these jewels.

thou, wielding this ten-span sword, maintain peace in the Empire.' " * We read also that on the arrival of the Emperor Keiko at Saho in Suwo, a chieftainess named Kamu-nashi-hime hung on a tree an eight-span sword, an eight hand mirror and a Yasaka jewel.† On the death of the Emperor Ankan, A.D. 536, " the ministers in a body delivered up the sword and mirror " ‡ to the new Emperor Senkwa. Prof. Chamberlain says :—" One of the virgin daughters of the Mikado always dwelt at the ancient shrine of Ise, keeping watch over the mirror, the sword and the jewel, which he had inherited from his ancestress, Ama-terasu, Goddess of the Sun." §

Magatama are made of various materials, of which the following list gives all that I can ascertain :—agate, jasper, chalcedony, serpentine, steatite, quartz, crystal, glass, jade, chrysophrase and nephrite (the three latter not found in Japan) ; also *Hisui* and *Rokan* for which I do not know a European equivalent.|| A *Magatama* of gold, or one plated with this metal, is said to have been found, but I have not had an opportunity of seeing one and have heard doubts expressed about it. Glass *Magatama* are rather unusual in Japan proper but very common in the Luchus where, along with other *Magatama*, they are worn to this day. In a few shrines *Magatama* may be seen arranged in strings and interspersed with

* Aston's Translation, Vol. I. p. 221.

† Ibid. Vol. I. p. 193.

‡ Ibid. Vol. 2. p. 33.

§ " Things Japanese," 4th ed. p. 415.

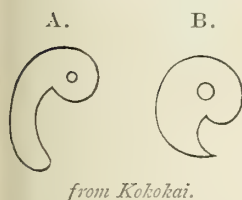
|| It is noteworthy that *Magatama* were not made of obsidian.

other ornaments, but we can scarcely accept these as illustrating their arrangement in prehistoric and protohistoric times. We have, however, in some *Haniwa* figures, proof that *Magatama* were sometimes worn around the neck.

Magatama vary considerably in size. The smallest that I have seen was barely 1 Cm. in length. These small ones are usually made of glass and come from the Luchus, but are sometimes of agate, cornelian or jade. The largest *Magatama* which I have seen from the Yamato tomb is kept in the Imperial Museum in Tokyo: it is of jasper and measures 3 in. (7.6 Cm.) in long diameter: another, of *Rokan*, is about 2 Mm. less.

The hole for suspension is usually drilled from one side but occasionally from both; it is always larger on the side from which the drill was used. When drilled from both sides the hole is narrowed towards the centre of the hole. This feature used to be relied on to distinguish genuine *Magatama* from forgeries, but imitations are now made which are scarcely to be distinguished from ancient *Magatama*. The form

Fig. 300.



of the sepulchral *Magatama* is subject to slight variations, Fig. 279. Those from the Luchus are often tenuous, Fig. 300 A. Forms like No. 17, Fig. 279, are often seen in the Kwanto. A rare form, Fig. 300 B, resembles a pattern common on Persian textiles.

Magatama were made as amulets, for personal decoration, or for religious use long after the

dolmen period. They are occasionally worn in the Luchus at the present day. Nos. 1, 2 and 3, Fig. 279, are probably not very ancient. Imitations in clay have been found, as at Higashi Osada village in the province of Awa, along with sepulchral pottery. N. Ono, who describes this occurrence,* thinks that they were for the purpose of holding a "Divine Ceremony." Imitations made of talc, exactly resembling real *Magatama*, and others reproducing the outlines in pieces of flat talc, have also been discovered. They have been found in the provinces of Yamato, Iwashiro, Kotsuke, Shimotsuke, etc.† I understand that those from Yamato are exact imitations, which are rarely found in other provinces. More often they are flattened.

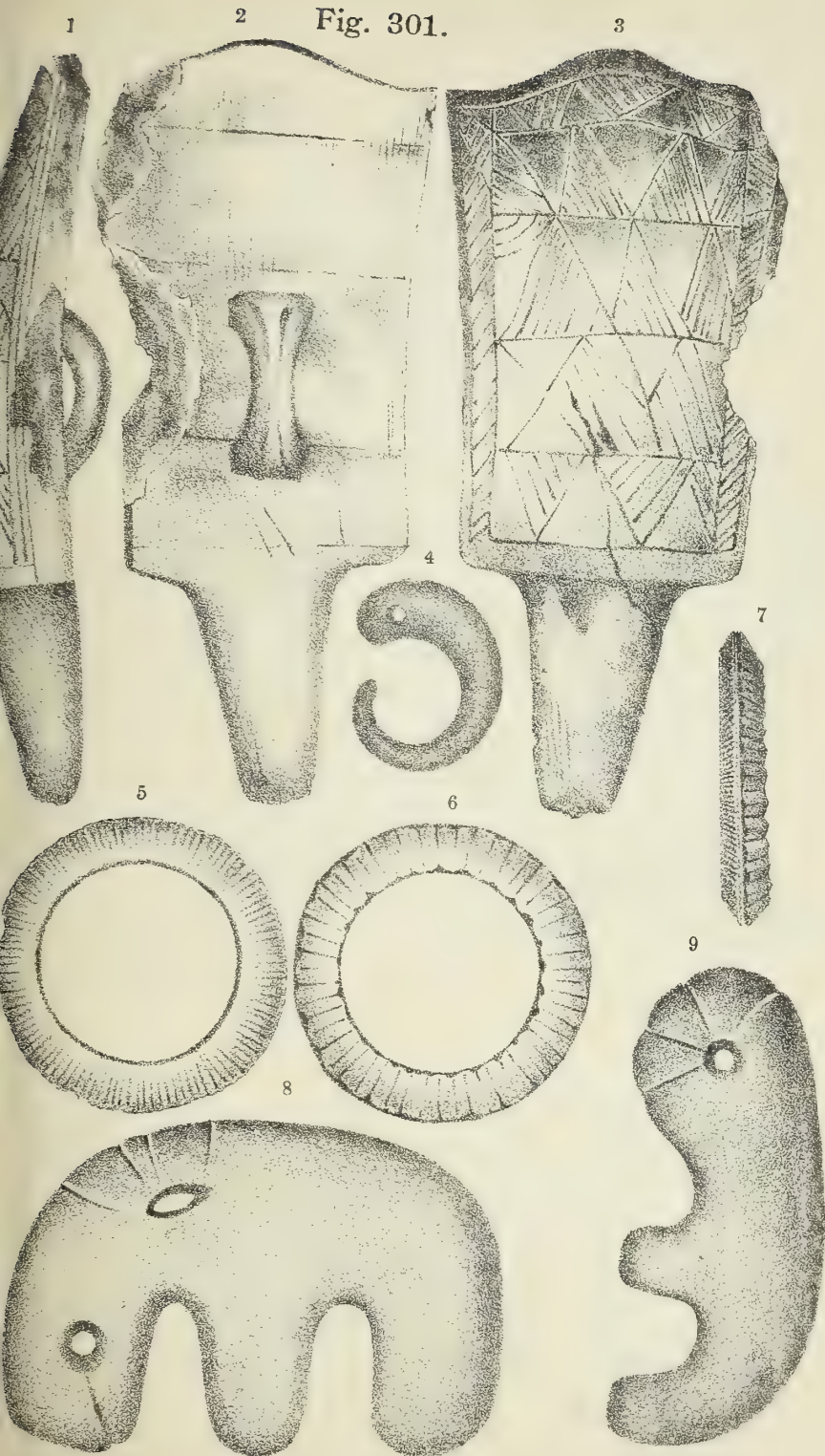
Such imitations have been discovered on the sites of ancient shrines, which were formerly holy places without roofed erections, as at Miwa in Yamato.‡ Nos. 9 and 18 of Fig. 279 are supposed to have been used for the "Divine Ceremony," or for the *Matsuri*, which is a fête or celebration, usually of a religious nature. These have never been found in Yamato sepulchres. No. 9 is called *Komochi* or child bearing *Magatama*, from the small representations on its surface. No. 1 of Fig. 281 is a very much conventionalised

* T.J.Z. No. 167.

† S. Wada found several at Yokoru village in the province of Shimosa, along with various Yamato relics. Villagers of Iwami Kamisato and Kusugawa, in the province of Yamashiro at Yoneoka in Kotsuke, Iwashiro in Kii and at Daishinden and Osuga in Shimosa have found large numbers of steatite *Magatama* (in some cases several hundreds).

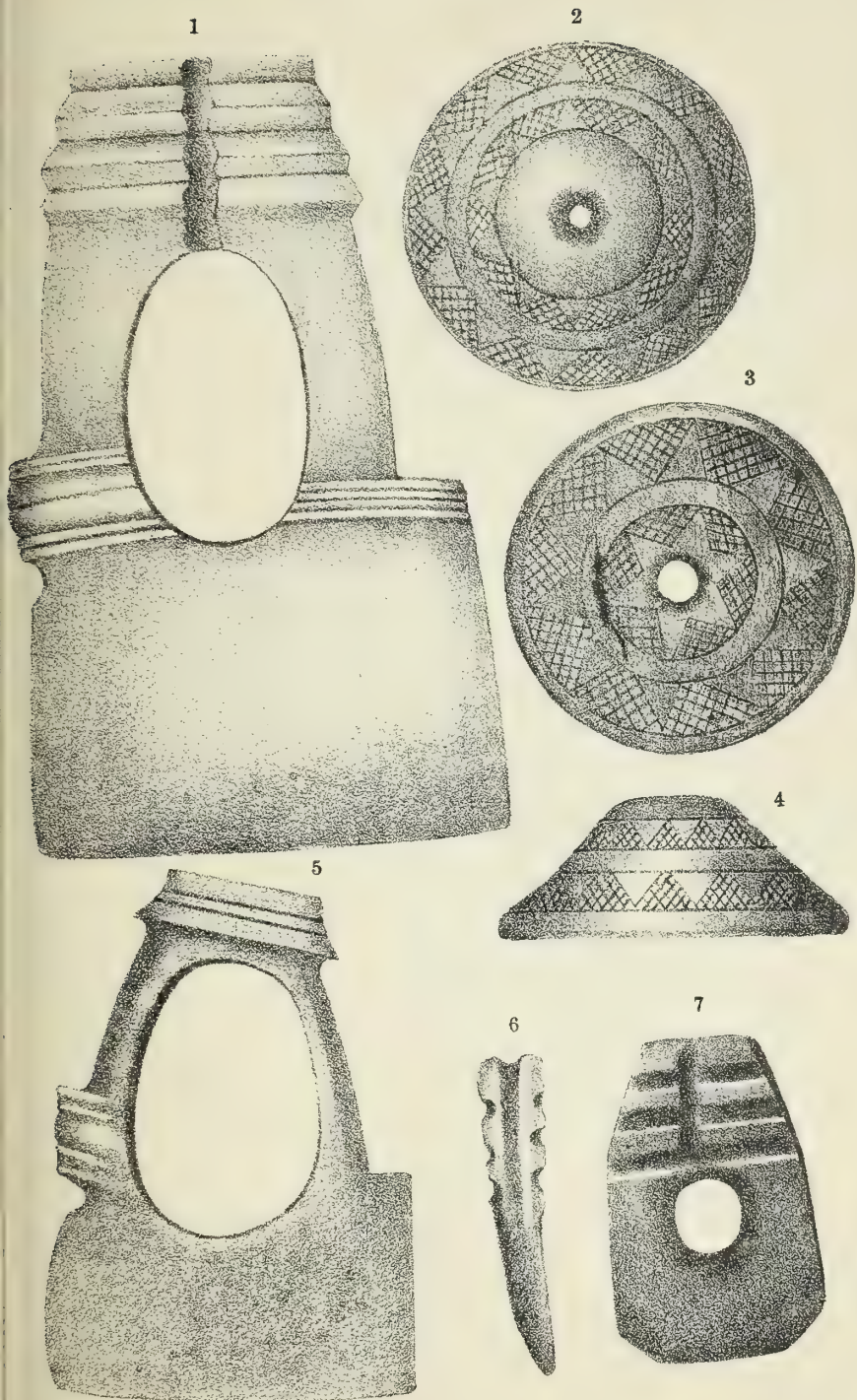
‡ K. Takahashi.

Fig. 301.



YAMATO STONE RELICS.
(After Kanda.)

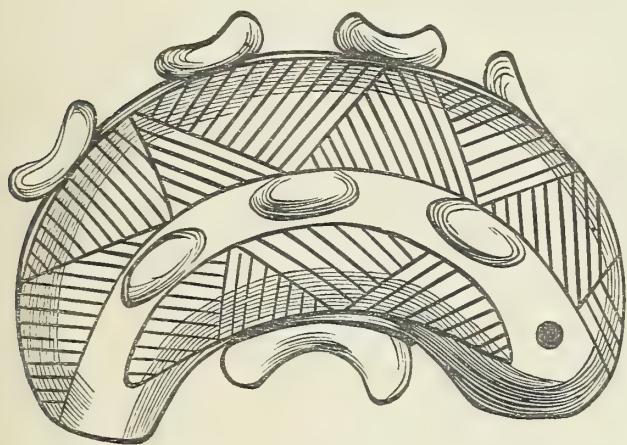
Fig. 302.



YAMATO STONE RELICS.
(After Kanda.)

form of the same, though it is sometimes called a sword pommel. The magatama origin is borne out by the presence of an excentric perforation, of corresponding knobs on the sides and on the convexity, and by the projection in the concavity; the connecting link between this and the small *Magatama* occupying the same position in No. 9, Fig. 279, is seen in No. 18.

Fig. 303.*



The mystery of number has always exercised the mind of man and in the lower stages of education has occupied a prominent place in magical formulæ. Belief in the power of numbers to achieve what is humanly impossible is instanced in the Nihongi. Possibly this kind of *Magatama* was a species of magical abacus. In No. 9, Fig. 279, there are five projections on the convexity, 3 on one side and 2 on the other, with a larger one in the concavity, which looks as if this object had been used for counting.

* T. J. Z. No. 188.

Attention may be called to the small circles carved in No. 18, of this Figure. These are probably emblematical of the sun. This primitive design might have been copied from similar patterns impressed on the Intermediate pottery by means of a piece of bamboo. The central spot, sometimes a smaller circle, is characteristic of the sun concept, though it has also a phallic signification in western lands. Three quaint forms are given in Fig. 301; another, in Fig. 303, is curiously marked with the triangular pattern before alluded to; none of these are from Yamato tombs. What meaning attaches to the lines (Fig. 279, and Frontispiece) radiating from the perforation in some *Magatama*? Are the latter the *Yasaka ni no Magatama* of the ancient writings?

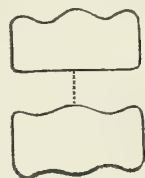
Among the personal ornaments of the Yamato, the *Kudatama* or tube-jewels occupy a prominent place, Fig. 280, Nos. 1 to 11 (excepting No. 7). In the Luchus pieces of bamboo are sometimes still worn in the necklace, occasionally interspersed with beads.* It may be surmised that the *Kudatama* were copied from this ornament. These are usually made of jasper, but rarely of crystal or cornelian, and exceedingly rarely of glass. There is one specimen of the latter in the Imperial Museum. They are usually bored from one end and the hole is occasionally quite wide, resembling in this respect the tube of bamboo. Stone beads, like *Kudatama*, occur in Formosa but those that I have are of agate or cornelian, cut hexagonally

* Several passages in the Manyōshū seem to echo this custom, e.g. :—

“And don my bead-lace

Of bamboo-rings close thridded.” Dickins’ Translation p. 65.

with polished faces. No. 11 is a steatite bead of *Kudatama* form. Other beads of crystal, known as *Kiriko-dama*, or cut crystal jewels are cut either hexagonally or octagonally, like two truncated prisms with a common base (Nos. 13 to 16). They are usually bored from one end. More or less globular beads of dark blue glass are fairly common. Sometimes they are of white glass, less commonly of green, and rarely of yellow glass. Occasionally they are of agate or cornelian, such as the central one in No. 7; No. 12 of the same figure in jasper, is probably also a bead. Beads of steatite, silver and clay have been found by Prof. Gowland and others. The last might have been sepulchral substitutes. A few curious articles of crystal, about twice the size of this, have been found in the tombs. Possibly they were buttons. Somewhat similar objects have been seen in copper.



Stone, usually jasper, was also employed for bracelets, Fig. 281, Nos. 2, 3 and 8, and the single specimen seen from various aspects in Fig. 301, Nos. 5, 6 and 7. I have very little doubt that the lines with which Nos. 2 and 3 are ornamented are a survival of the use of shells for this purpose. Fig. 304, 1, 2 and 3, represent a shell cut as a bangle and two others of problematical use. The first came from a burial cave in Buzen, the second from a tomb in the same province, and the third from a primitive site.

It is possible that the articles seen in Fig. 282, Nos. 1 and 2, the function of which is not clearly

known; Nos. 3 and 4, Fig. 283, and No. 7, Fig. 281, were derived from shells. If I venture to throw out the suggestion that some of the enigmatical

Fig. 304.*



objects known to Japanese collectors as *Kitsune no Kuwa*, or fox hoes, were copied from articles made of sea shell, it is but as a bow drawn at a venture, but the association with the fox, the messenger of the cereal god *Inari* is significant. The resemblance between the objects seen in Fig. 283, Nos. 1 and 2, Fig. 302, Nos. 1 and 5, and those seen in Fig. 304 is remarkable, especially when we consider the high probability that the striated bracelet was copied

* T. J. Z. Nos. 176 and 49.

from one of shell. This likelihood is somewhat enhanced by the consideration that wide stepping originality is rarely found in the arts of primitive or even of barbaric peoples. The earliest coins of China were copied from the cowrie and afterwards from hoes, etc. If the function of these objects were ornamental one might regard their origin from shells with more confidence. We might suppose that the shell objects seen in Fig. 304, were attached to the ear, or adjusted, perhaps, to the binding of the hair. But this surmise could scarcely extend to articles of stone. The weight, and in some instances the size, would prove a serious obstacle to such an application. The origin of the title is thus explained by the late Baron Kanda, in his illustrated monograph :*—"At the time of its first discovery this implement was found in the earth dug up by foxes from an ancient tomb. It was, therefore, naturally supposed that the foxes had used it in digging, just as objects found after thunderstorms, such as *Raifu*, *Raitsui* etc., received the affix *Rai*, i.e. "Thunder," as if they had been hurled from the skies." This object might well be the conventionalised survival of a shell hoe. Like the ceremonial axe of the Southern Seas, the mace of European state occasion, or the survivals of bronze weapons in Japan as emblems of a time which had run its course, these specimens might have been connected with ceremony or ritual, in later time, or may have been, like the stone knives mentioned below, regarded as appropriate to the

* "Notes on Ancient Stone Implements etc. of Japan," Footnote to Plate XVIII. 1884.

service of departed ancestors. Yet they might possibly be actual contrivances; one observes that while many of them are slightly curved on the flat, some have a vertical groove as if they had been suspended, or at least adjusted, in a perpendicular position, Nos. 1, 2 and 7, Fig. 302. On the whole I prefer to regard them as sepulchral survivals of a shell hoe. No. 4 of Fig. 282 (broken at one corner) looks remarkably like the weight of a plumb-line. It is not only marked with a vertical slit, but is provided with a hole on the top as if to attach a line, or a hook for holding the same.

Less dubiety attends the remaining objects with which we have to deal. Figs. 284 to 287 show vessels of stone. Fig. 284 is an elegant vase of jasper, Fig. 285 a shallow dish or stand on four legs, Fig. 286 a pair of jars with covers, perhaps for toilette purposes. A jar or receptacle of a similar nature is seen in Fig. 287, and also a cup which may be a substitute for a Korean cup of earthenware, a specimen of which is kept in the Imperial Museum.

Fig. 288 shows a flat mortar and pestle, perhaps for triturating cinnabar. No. 5, Fig. 282 might also have been a small mortar, though possibly a toilette dish.

Fig. 289 shows a head-rest for the corpse, surmounted by three double *Magatama* forms, probably placed as amulets for the welfare of the departed.

Fig. 290 is also a head-rest or pillow, but from its small size, properly belongs to the category of sepulchral substitutes or imitations.

It goes without saying that the use of substitutes whether in sacrifice or other offering, must continue long after the originals which they supplanted. There is, therefore, a strong presumption that the Yamato tombs containing these substitutes are of less ancient date than those which are devoid of them. That it is impossible, however, to lay down a hard and fast rule in a matter of this kind is evident when we consider that, unlike human sacrifice, where the growth of human sentiment was the chief factor, the question of offering costly originals or imitations in stone was chiefly an economical one. Although the propriety of offering substitutes might be generally recognised, those who could well afford to part with the actual weapons and utensils would continue to do so. As a matter of fact the importance of the iron sword was so paramount that its imitation has not, so far as I know, been discovered in any tomb. We have seen the tendency to regard the bronze sword as an emblem of the *Jindai* or Age of the Gods; the occasional occurrence of stone models of the short bronze sword or dagger in the tombs of the Yamato, Fig. 1, page 7, and No. 5, Fig. 281, as well as in those of Korea, was perhaps a votive offering to those who in past times had "gone before," rather than a means of direct protection to the recently deceased. The sheath-knife, which is found only in the stone model, may have been a hunting weapon, Fig. 2, (Page 8) and Nos. 1, 2, 6, and 7, Fig. 292. A similar article is in use at the present time in central Asia; the knife of the Ainu, too, is often remarkably like it, Fig.

177. Note the resemblance of the projection on the stone imitation knife to that of the Ainu. Arrow-heads of polished stone, No. 2, Fig. 2, and Nos. 4 and 6, Fig. 281, are far from common. They seem to follow the bronze model, though Nos. 4 and 6, Fig. 281, are probably of later design. A few spear-heads of polished stone, e.g., Nos. 4 and 5, Fig. 292, have also been found. One or two arrow-heads and spear-heads in bone have been recovered, but these might have been in actual use. The Later Han Records, A.D. 25-220, referring to the Japanese at that time state :—" Their soldiers have spears and shields, wooden bows and bamboo arrows, which are sometimes tipped with bone." *

Although shields have entirely disappeared, some substitutes in stone have been found, Figs. 293 † and 301. They were provided with a loop or ring and perhaps worn on the arm, though possibly held in the hand. The triangular decoration on No. 1, Fig. 301 is noteworthy. Figs. 294 and 295 probably illustrate the effect of economy in the substitution of the more permanent stone models for costly body armour. The low front and high back are exaggerated in these models.

Fig. 296 represents two *Geta* or wooden clogs which differ from those of the present day mainly in the use of knobs to heighten the sole, instead of cross pieces in front and behind, (Fig. 305), or in being simply blocks of light (*Kiri*) wood, with a

* Aston, "Early Japanese History." Transactions of the Asiatic Society of Japan. Vol. 16. p. 54.

† The objects in Figs. 293-5 were kindly lent by Mr. Wada.

hollow in the middle, Fig. 306. Fig. 307 shows a pair of stone imitation clogs reported by the late Baron Kanda in No. 20 of the Tokyo Anthropological

Fig. 305.

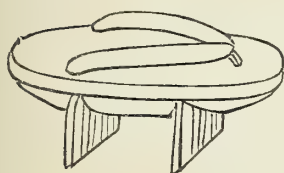
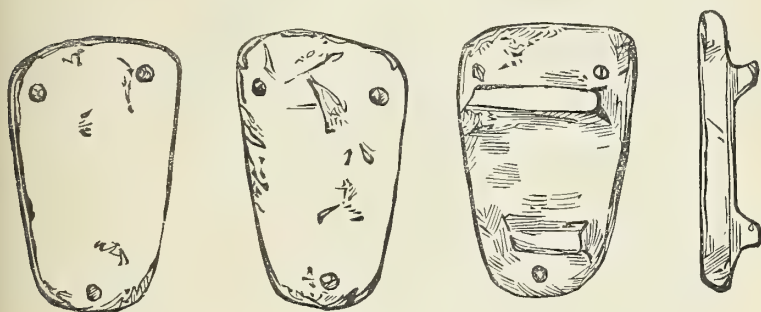


Fig. 306.



Magazine. They are specially made for each foot, differing in this respect from the modern *Geta*. The

Fig. 307.



(REDUCED.)

reader may be reminded that in England, there was used until quite recently, a patten or clog, with an iron support to raise the foot several inches off the ground.

Substitutes of the axe, hoe, or chisel are comparatively common, No. 2, Fig. 255 and No. 8, Fig. 292. No. 3 of this figure looks like a chisel but might have been a spear-head. Models of combs, scythe or sickle

blades, knife blades and tables are far from common but a good many steatite imitations of mirrors, or what are taken for such, have been unearthed. The object

Fig. 308.



seen in Fig. 308, is an imitation in stone of a sword pommel. This is so rare that it has been rejected by two experts as spurious, but I was inclined to think otherwise, though it came into my possession from an old collection and its source could not be traced.

It was already broken, but I made a fresh fracture and found that the surface change in the stone, which is about 1 millimetre in thickness, was uniformly distributed over its contour and indicated an antiquity which practically leaves forgery out of the question.

Spindle weights are rather rare, Fig. 255. Some of these are ornamented. Nos. 2, 3 and 4 of Fig. 302 for instance, show the surfaces of a spindle weight, covered with the triangular design so familiar on the bronze bells and on the Yamato pottery and other objects.

Imitations in stone are generally made of steatite, but sometimes of serpentine, chlorite schist, and occasionally of clay slate. They are frequently coated with ochre, or hæmatite, to emphasize their character as sacred substitutes.



CHAPTER XII.

YAMATO POTTERY.

The pottery of the Yamato which has outlasted the prehistoric age, mainly by conservation in or through association with the tomb, was probably selected, if not specially manufactured, for this purpose. The great bulk of it consists of a hard earthenware which is regarded by Japanese archaeologists as identical with that known from protohistoric, if not from prehistoric times, as *Iwaibe*. The derivation of this word is obscure, and its identity with the sepulchral pottery is not clearly established. The sepulchral pottery played a part in religious ceremonial. The word *Iwaibe* when written 齋甕, means "sacred vessel." "*Be*" is usually held to mean a jar only, but S. Otsuki* has pointed out that it has the wider signification of "vessel" in such words as *Nabe*, a pan, *Honobe* a brazier (?) and *Tsurube* a well bucket. According to the "Shakai Jii," (Social Dictionary) other terms such as *Imbe*, 忌甕, "Abstention pottery," and *Itsube*, 巖甕. "Rock pottery" (which has the secondary meaning, "Divine pottery") have been used in this connection. *Iwaibe*, and *Imbe* (齋甕 and 忌甕) actually represent different aspects of sacred service, the former being literally restricted to "purification,"

* T. J. Z. No. 185.

but either of them may be freely translated as "sacred vessel." If we accept the term *Iwaibe* as an equivalent for what I have hitherto called the sepulchral pottery of the Yamato it is essential to bear in mind that it is not held to include all pottery found in the tombs. It does not embrace the Intermediate ware, occasionally buried with the dead, and it is further distinguished by some archæologists from the strikingly similar pottery of Korean origin which is sometimes found along with it. As the *Iwaibe*, however, though made in Japan, was certainly copied from the Korean ware, it will be sufficient to speak of the two varieties as Korean and Japanese *Iwaibe*.

Several kinds of unglazed terra-cotta occur in the Yamato sepulchres, though not nearly so often as the classical *Iwaibe*. Primitive pottery, on the other hand, is not found in the tombs. It is a fair inference, therefore, that the former was used by the Yamato and as it is altogether of an inferior kind to the classical *Iwaibe*, it may be further assumed that it was in everyday use, while the latter was reserved chiefly for ceremonial or religious purposes. The connection of the Intermediate ware with the Yamato culture and its prevalence throughout Japan renders it almost certain that it was the ordinary household pottery of this people. According to the Engishiki, cited by Prof. Miyaki,* vessels of coarse terra-cotta were made by the *Haniwa* potters. This pottery, as we shall presently see, is marked with lines as if by a comb in a manner similar to those on the

* T. J. Z. No. 105.

Intermediate vessels, and presumably had a common source. The same investigator gives the Wamyōsho (Collection of Japanese Names) as authority for the statement that coarse terra-cotta was made in the provinces of Kawachi, Chikuzen, Chikugo, Bizen, Inaba, Tamba, Awa (Shikoku) Kotsuke and Shimotsuke. He also mentions that the Yuriaku Ki (Record * of Yuryaku, A.D. 457-9) gives in addition the provinces of Settsu, Yamashiro, Ise and Tajima. The Engishiki is further cited to the effect that the *Iwaibe* was made in the provinces of Settsu, Mino, Harima, Sanuki, Chikuzen, Mikawa and Awaji. The most famous places were Sue in Izumi and Kagamidani in Ōmi, while in Bizen, Harima and Owari there were several noted potteries. Not only in these provinces have the sites of ancient potteries been discovered but also in the Kwanto (Musashi and Hitachi) and as far north as Rikuchu. From considerations which will appear in Chapter 12, it is practically certain that the *Iwaibe* made in the last mentioned place belongs to the historic period. Outside of these ancient factories the *Iwaibe* thus far discovered has been found almost entirely in the Yamato sepulchres or in their immediate proximity. Exploration of ancient dwelling sites would probably yield little of this special ware. Very rarely has it been disinterred from pits, or other residential sites. Instead of having been the prevalent pottery of the Yamato it is quite likely that the *Iwaibe* was but little used in the daily life, except perhaps among the highest classes. At the present

* Not contemporary.

day it exceeds the Intermediate pottery in amount only, I imagine, as regards complete specimens. Notwithstanding that some débris of *Iwaike* have been found in old factories of this ware and to a limited degree near tombs and other sites, fragments of Intermediate pottery are widely distributed and appear to be more prevalent than the other. The predominance of *Iwaike* specimens results from their accumulation in the sepulchres during centuries of vicissitude, while the softer ware was seldom cast aside till unfit for use and has been exposed to conditions from which the sacred vessels have been fairly well exempt. The Intermediate pottery has, however, survived in forms which are in use at the present time, and its shapes have also been transferred to lacquered wood. This material was formerly so much in vogue for bowls and such like, that (as with the lacquered cups used by the Ainu) its competition must have acted injuriously on the ceramic art.

The classical *Iwaike*, whether of Korean or Japanese origin, has several features which sharply define it from the primitive pottery. It is often roughly tempered, but the paste is finer than in most of the primitive pottery. As a rule it is uniformly baked and is usually much harder than the best of the primitive ware. It does not cling when touched with the tongue and sometimes is hard enough to be called stoneware. It rings with a metallic note when struck. Experts in pottery-making have told me that such ware must have been baked two or three times in the kiln. The colour of the paste is generally a slate grey and may be light, or more com-

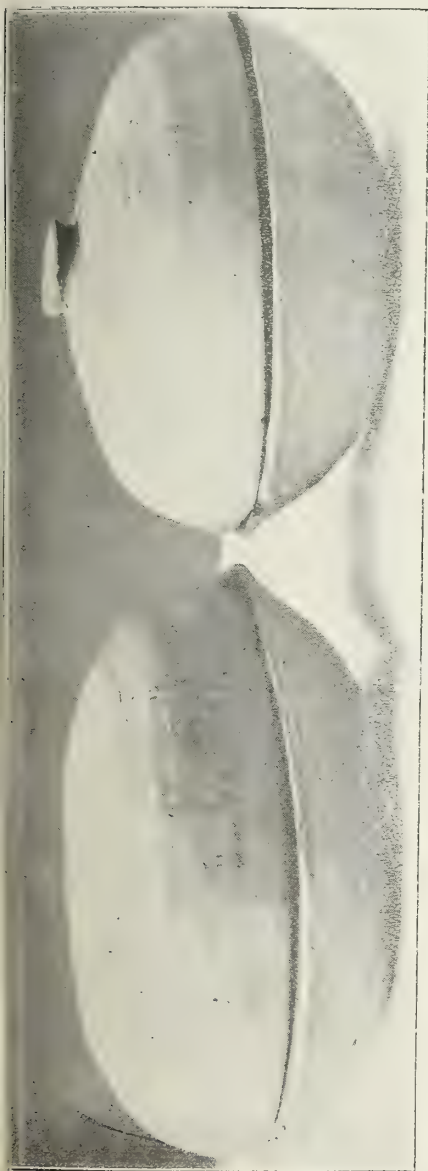
monly, dark. The tint may be warmer, like "stone" colour; rarely it is brown, occasionally it is nearly black. The vessels were always turned, partly or entirely, on the wheel. The *Iwaibe* is not specially coloured by inburnt pigment, and most of it is not properly glazed, but a very thin vitreous surface is often seen, and occasionally accidental patches of thick glaze are present. The decoration, which will be separately alluded to, is simple and restrained, and with the exception of rare figures on the shoulders of the Japanese *Iwaibe*, is destitute of high relief. It offers a striking contrast to the highly ornate decoration of the primitive pottery.

According to S. Nakazawa and S. Yagi the Korean *Iwaibe* differs from the Japanese in the possession of more patterns, the cups have more often handles, the bottoms are rarely round, it never has high relief decoration, is never perforated with small round holes, and never has potters' marks.* These points of difference are perhaps too absolute, but they show that some modification had taken place in Japan.

The remarks at page 170 on the difficulty of associating form and function apply here, but the following arrangement may suffice for description:—

- | | |
|-------------------|----------------------|
| 1. Bowl and Dish. | 6. Vase. |
| 2. Tazza. | 7. Water Jar. |
| 3. Cup. | 8. Bottle. |
| 4. Jar. | 9. Flask or Costrel. |
| 5. Pedestal. | 10. Drinking Vase. |

* "Nihon Kōkogaku" (Japanese Archæology). Some of the patterns exhibited belong to the Tang Dynasty of China, A.D. 618-907, and are therefore invalid for the purpose of this comparison.



BOWL OR DISH.

Fig. 310.

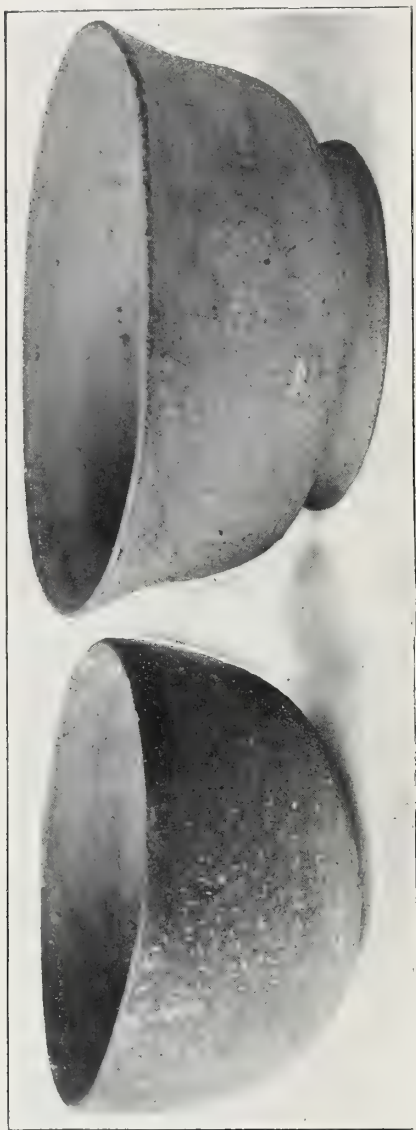


1

BOWL OR DISH.

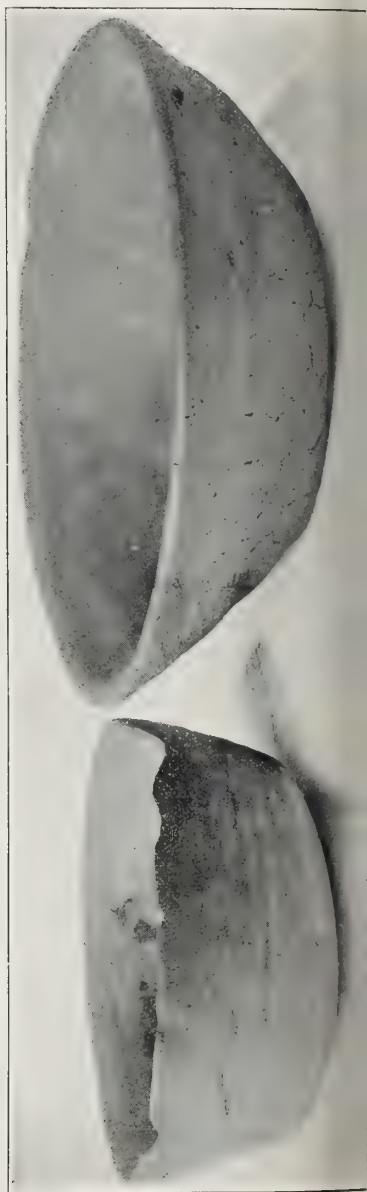
2

Fig. 311.



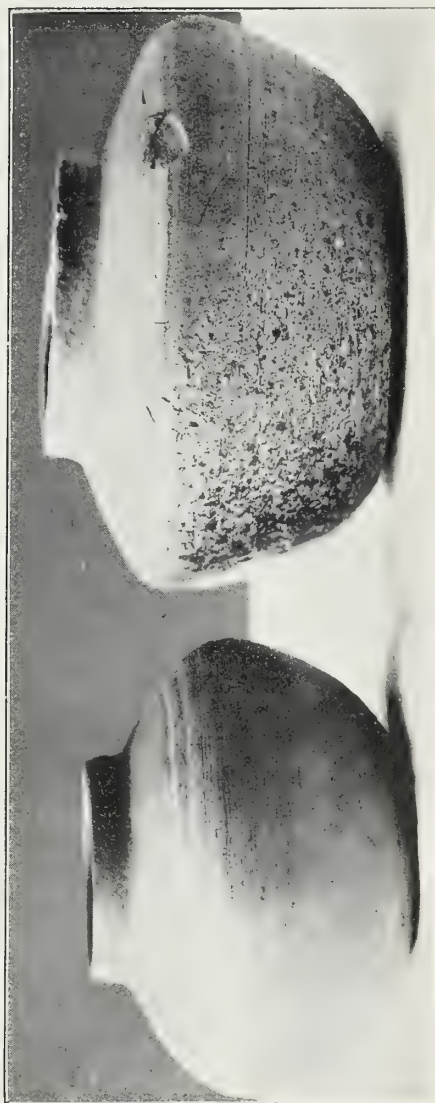
Bowls.

Fig. 312.





BOWLS.
Fig. 314.



JARS.



Fig. 315.

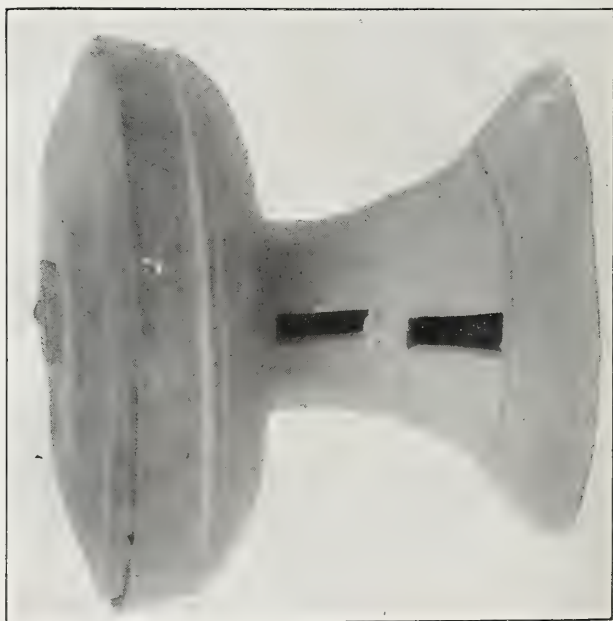
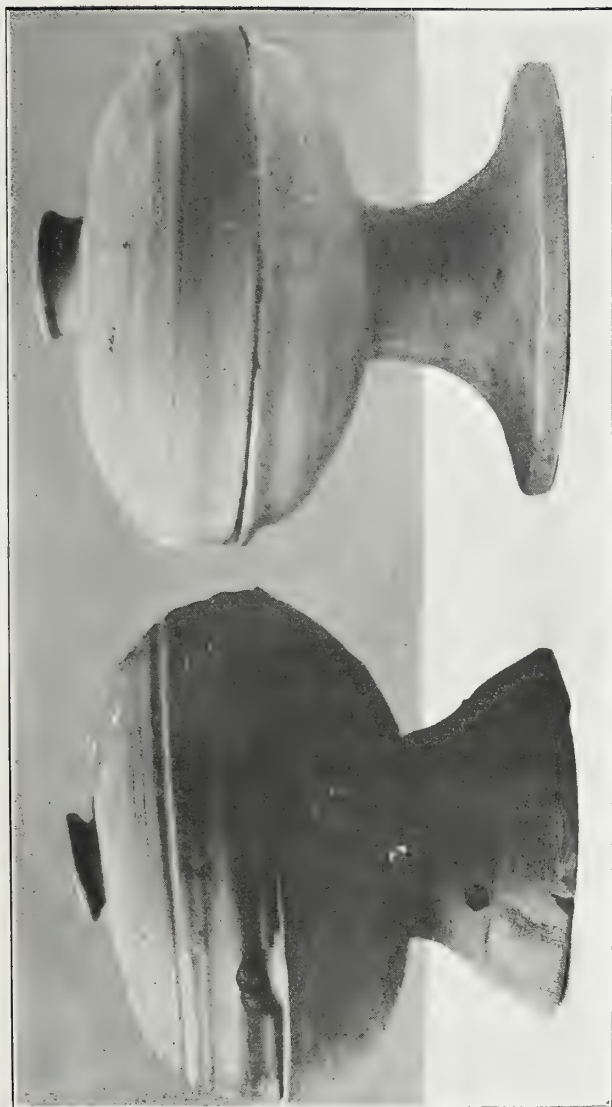
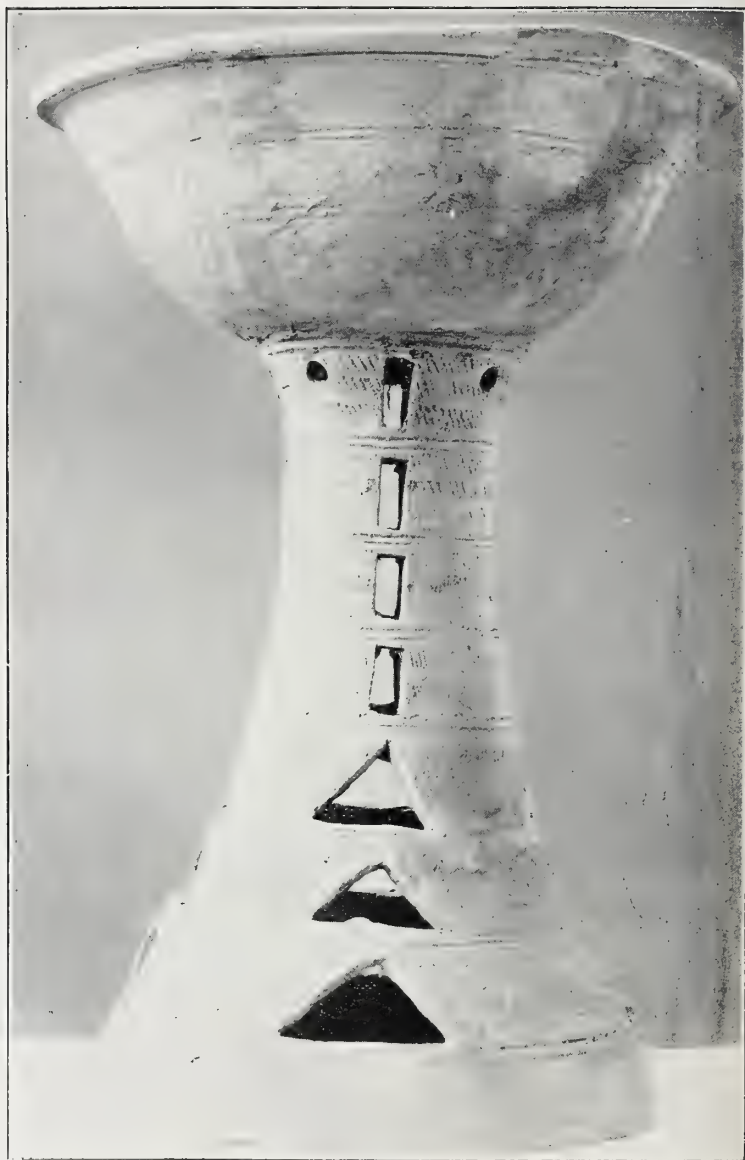


Fig. 316.



MOUNTED BAWLS.

Fig. 317.



Tazza.

Fig. 318.



MOUNTED BOWLS OR CUPS.

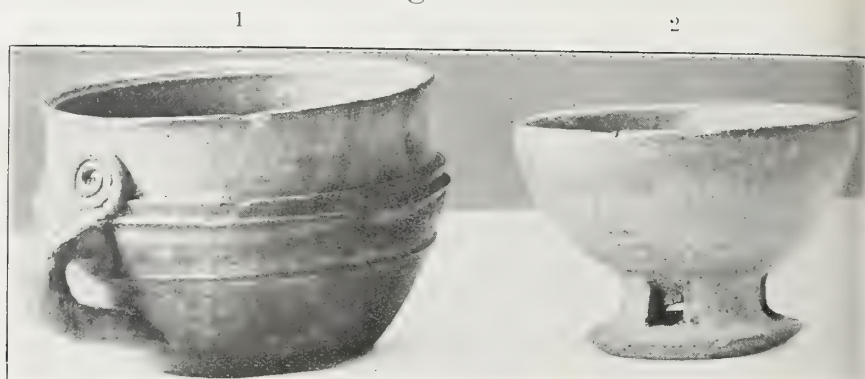
Fig. 319.



TAZZA OR CUP.

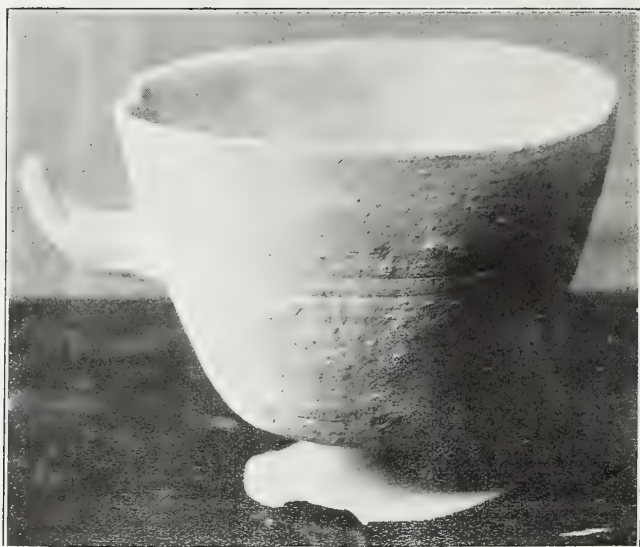
TOKYO IMPERIAL MUSEUM.

Fig. 320.



CUPS.

Fig. 321.



CUP.

TOKYO IMPERIAL MUSEUM.

Fig. 322.



CUP.
TOKYO IMPERIAL MUSEUM.

Fig. 323.



JARS.

Fig. 324.



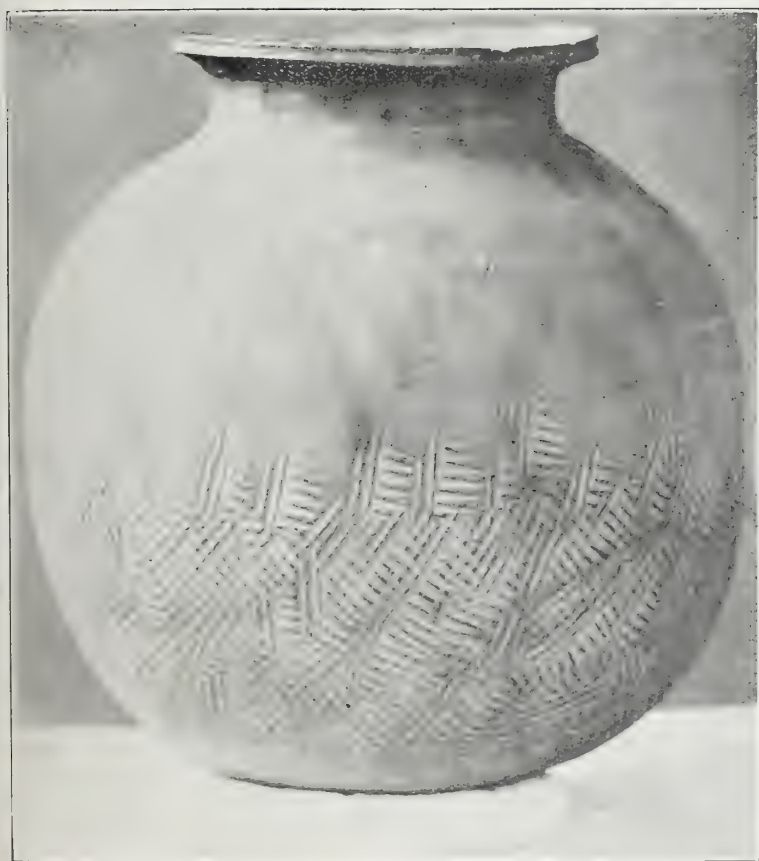
JARS.

Fig. 325.



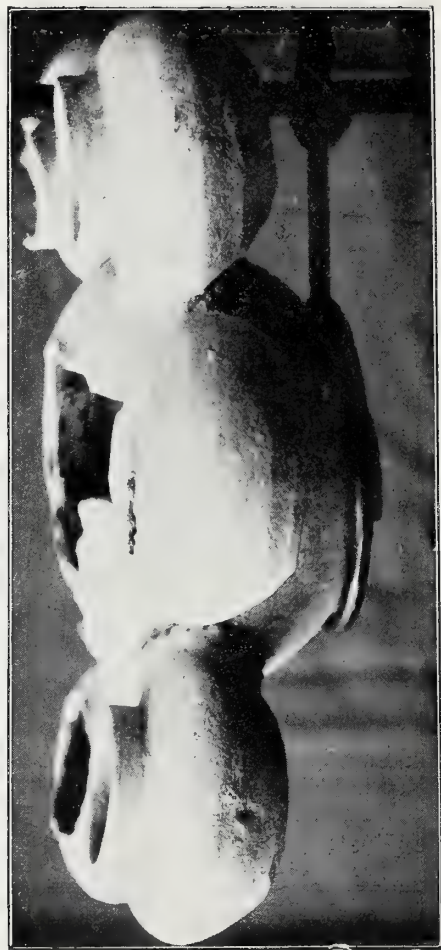
JAR.

Fig. 326.



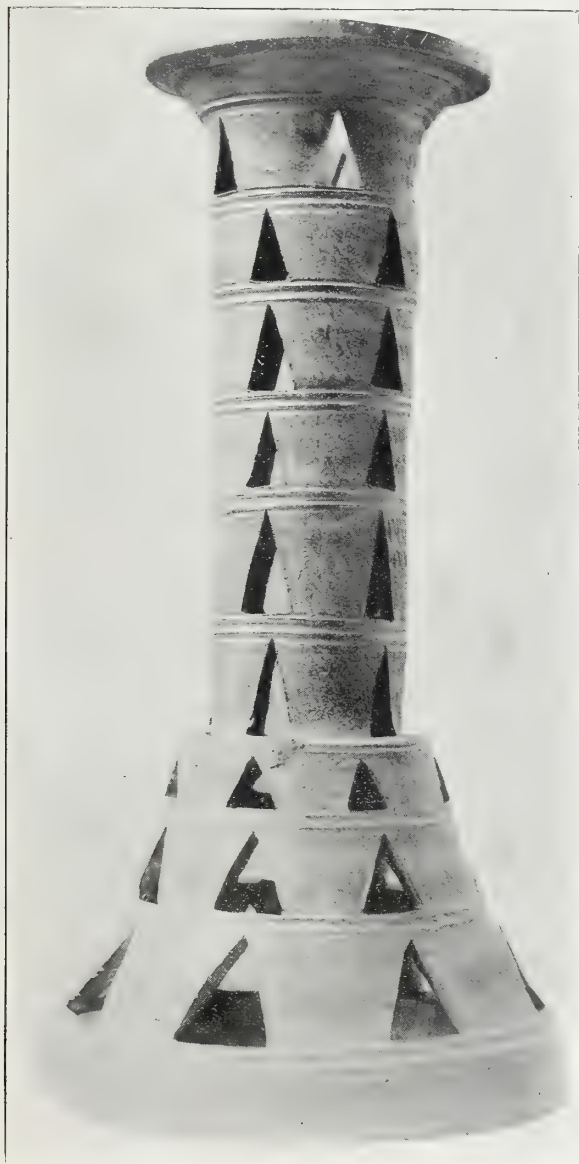
JAR.

Fig. 327.



SUPERNUMERARY JARS.
IMPERIAL UNIVERSITY COLLECTION

Fig. 328.



PEDESTAL.

Fig. 329.

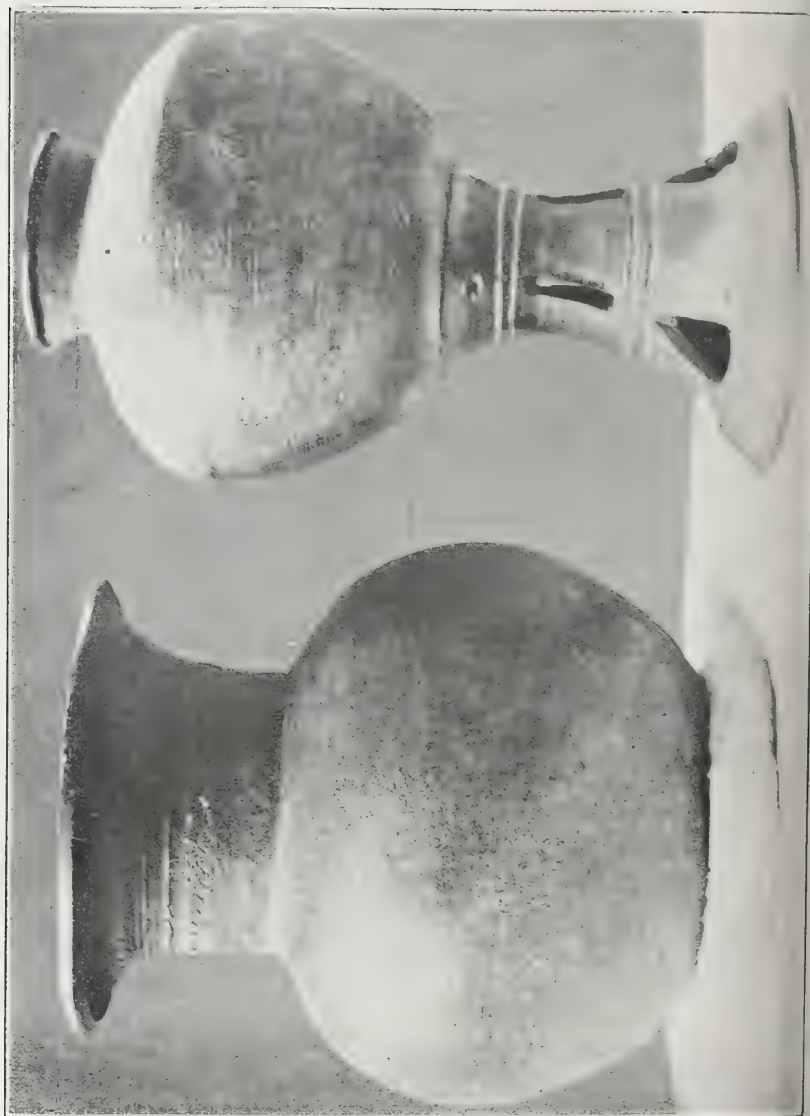


Fig. 330.



1

JAR AND VASE.

2

Fig. 331.



1

BOTTLES.

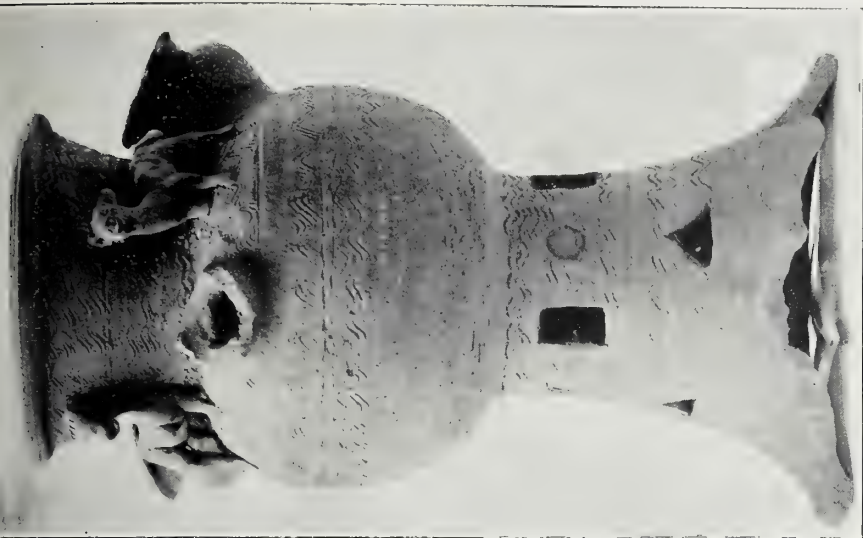
2

Fig. 333.



Fig. 332.





VASE.

Fig. 335.



VASE.
TOKYO IMPERIAL MUSEUM.

Fig. 336.



VASE.
TOKYO IMPERIAL MUSEUM.

Fig. 337.

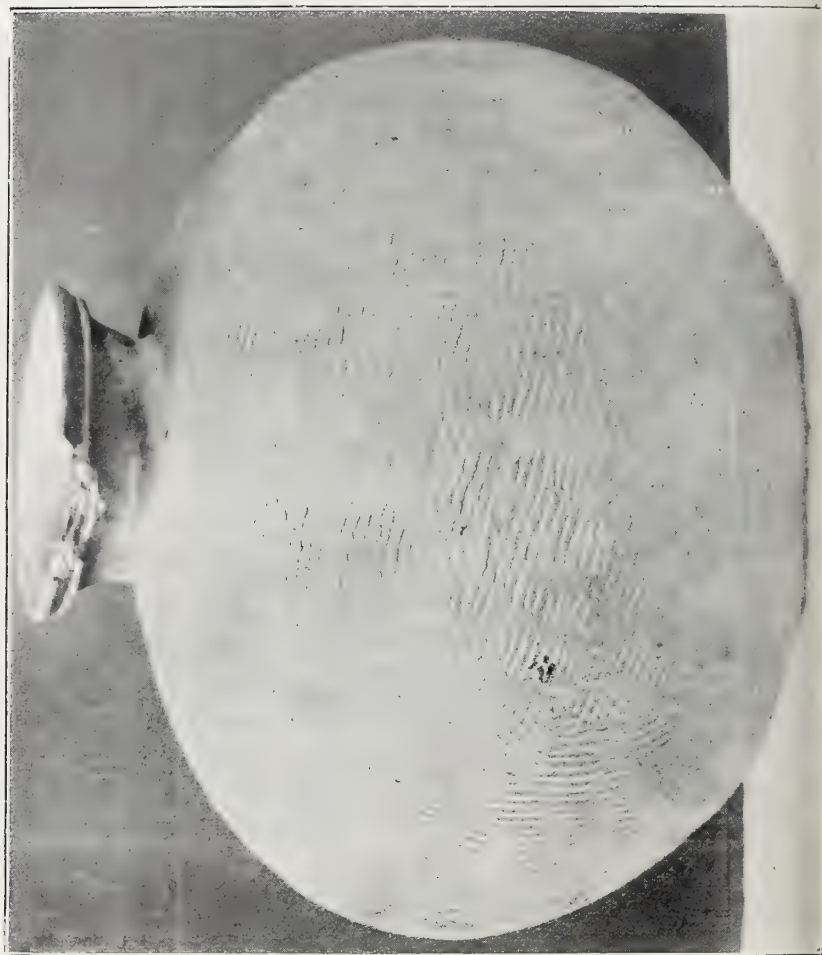
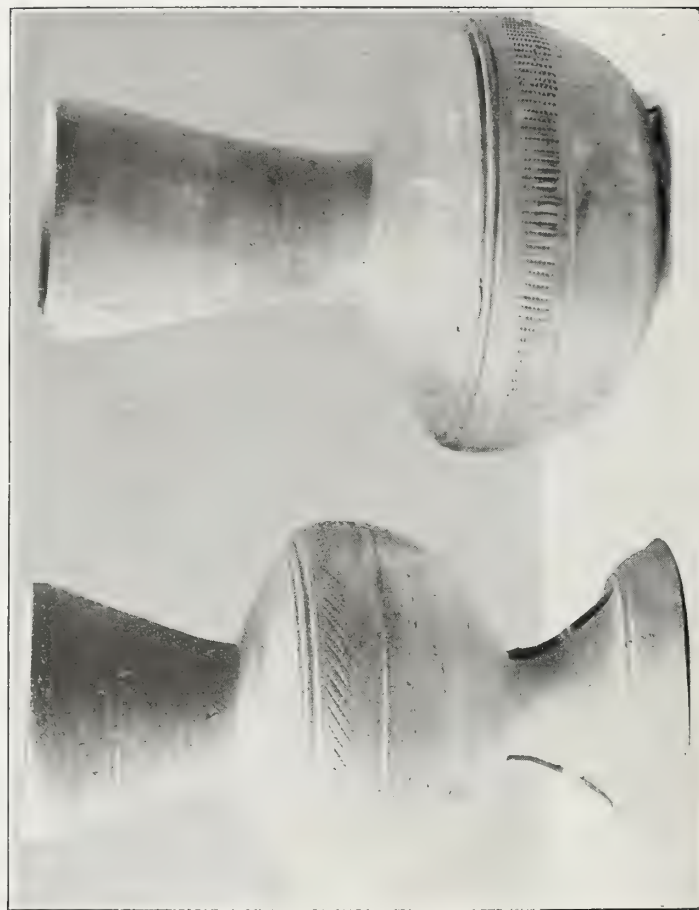


Fig. 338.



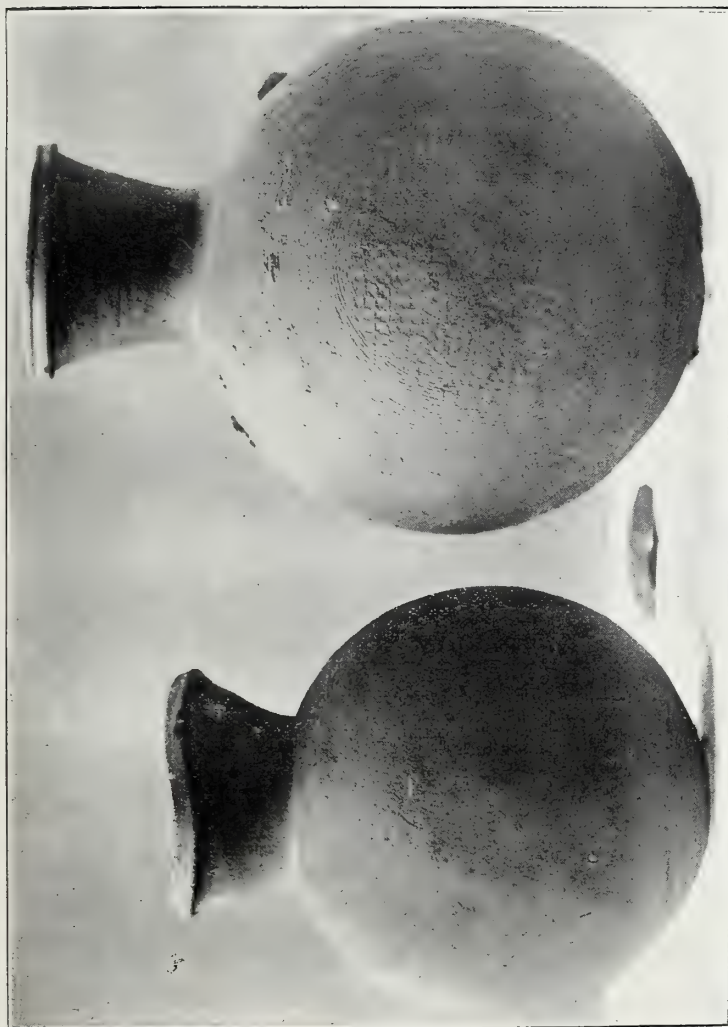
WINE OR WATER JAR.
TOKYO IMPERIAL MUSEUM.

Fig. 339.



BOTTLES.

21



FLASK AND BOTTLE

1

Fig. 341.

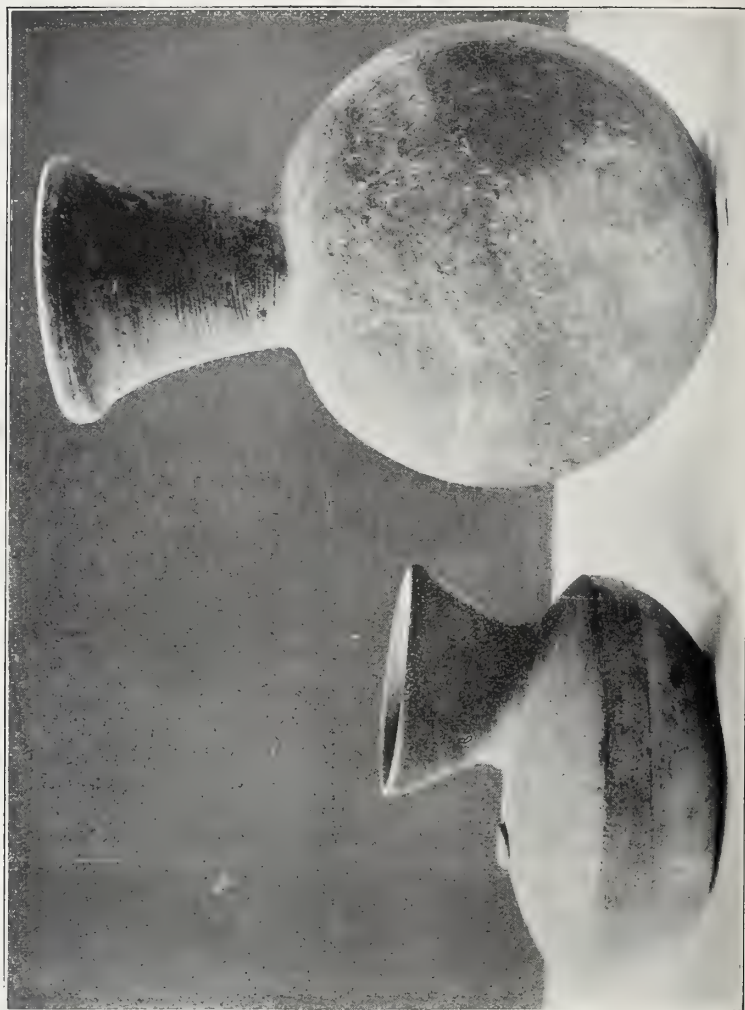


Fig. 342.

1

2



BOTTLES.

Fig. 343.

1

2



BOTTLES.

Fig. 344.



BOTTLE.
(*Komochi.*)
IMPERIAL UNIVERSITY COLLECTION.

Fig. 345.

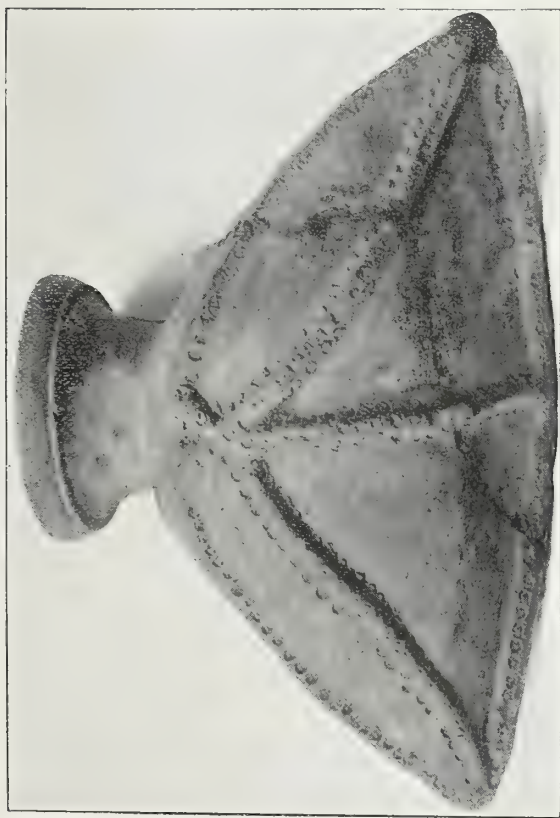


FLASKS

Fig. 346.



Fig. 347.

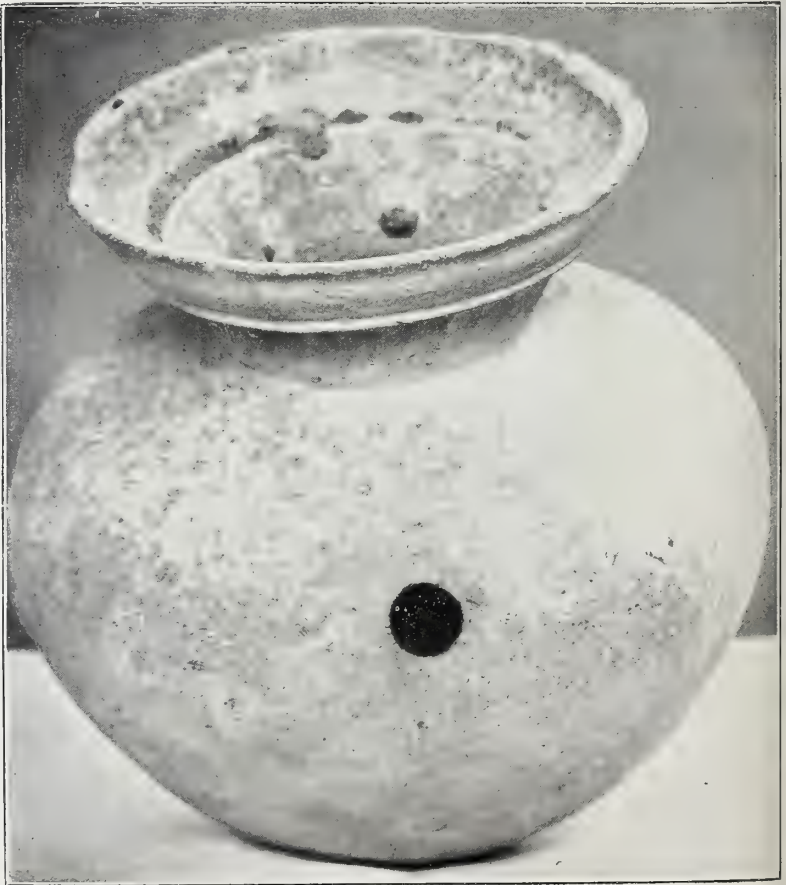


FLASK OR COSTREL,
TOKYO IMPERIAL MUSEUM.

Fig. 348.



Fig. 349.



LIBATION VASES.

Fig. 350.



LIBATION VASE.

Fig. 351.



LIBATION VASE.

IMPERIAL UNIVERSITY COLLECTION.

Fig. 352.



HANIWA.
IMPERIAL UNIVERSITY COLLECTION.

Fig. 353.



TOKYO IMPERIAL MUSEUM.

Fig. 354.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 355.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 357.

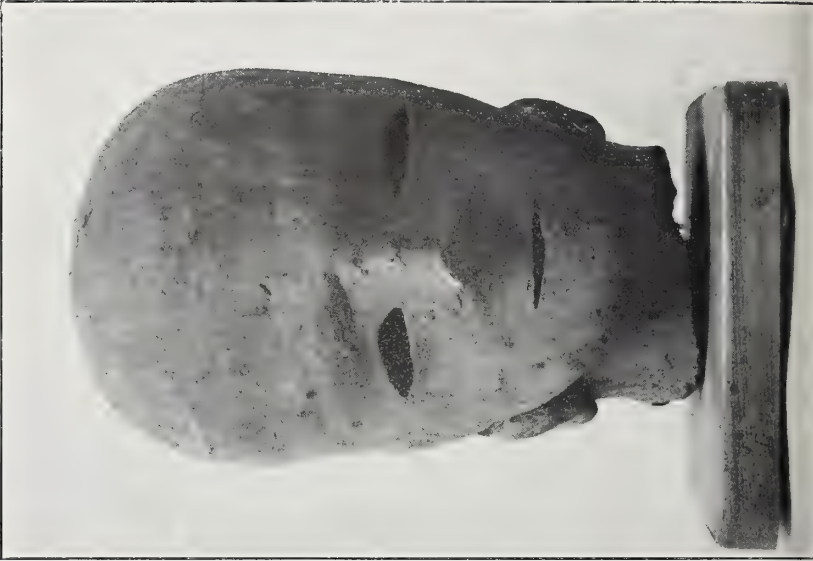


Fig. 356.



Fig. 358.



Fig. 359.



TOKYO IMPERIAL MUSEUM.

Fig. 360.



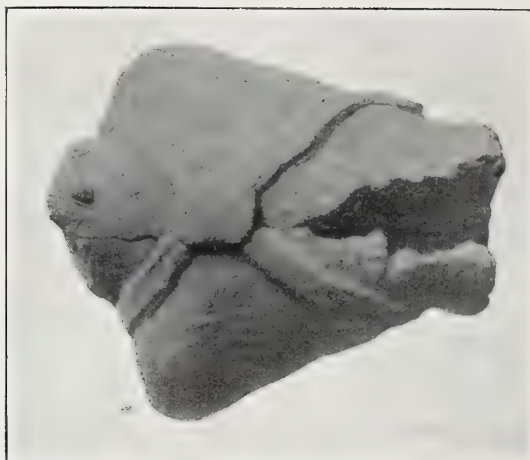
TOKYO IMPERIAL MUSEUM.

Fig. 361.

1



2





TOKYO IMPERIAL MUSEUM.



TOKYO IMPERIAL MUSEUM.

Fig. 364.

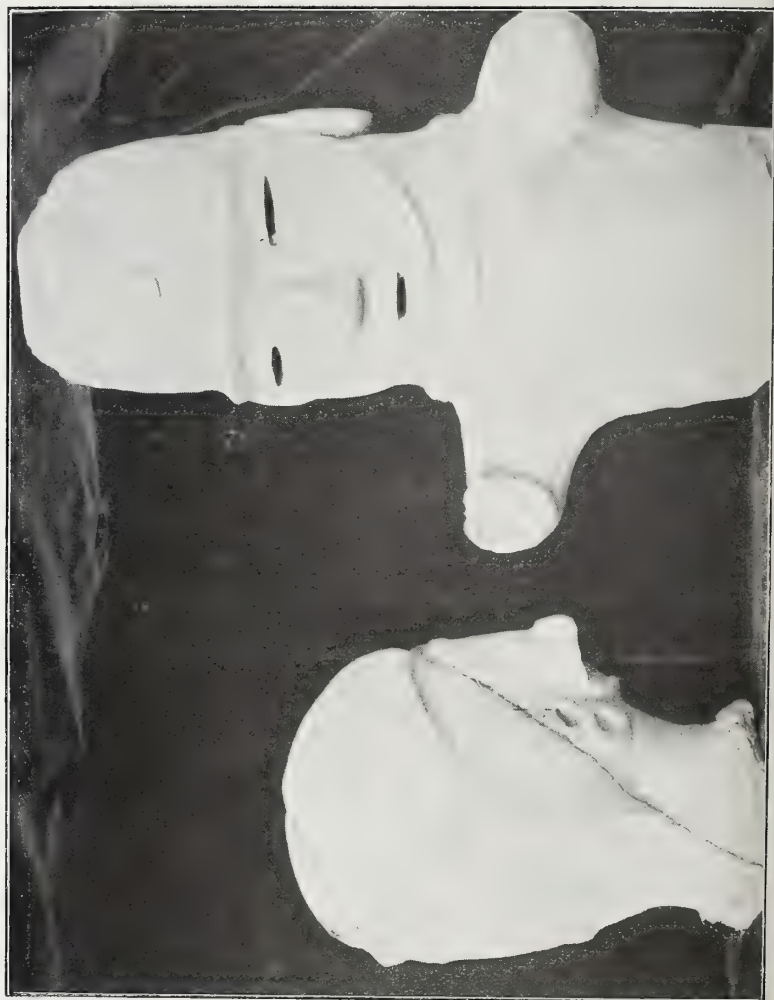
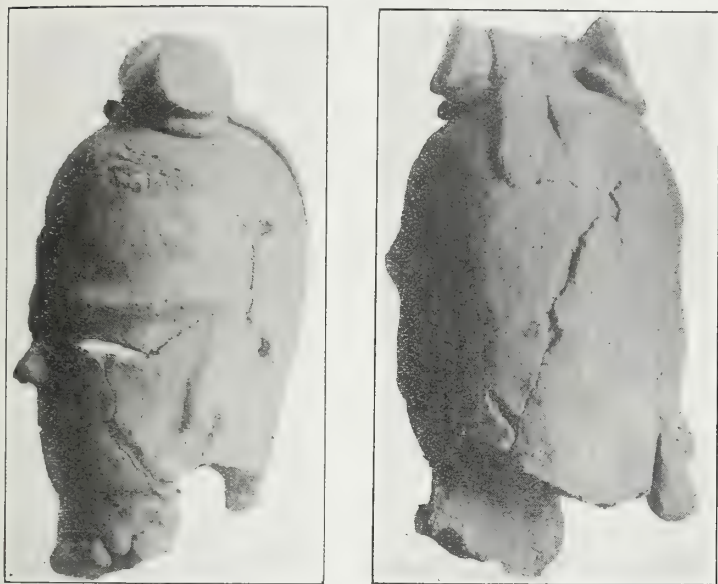
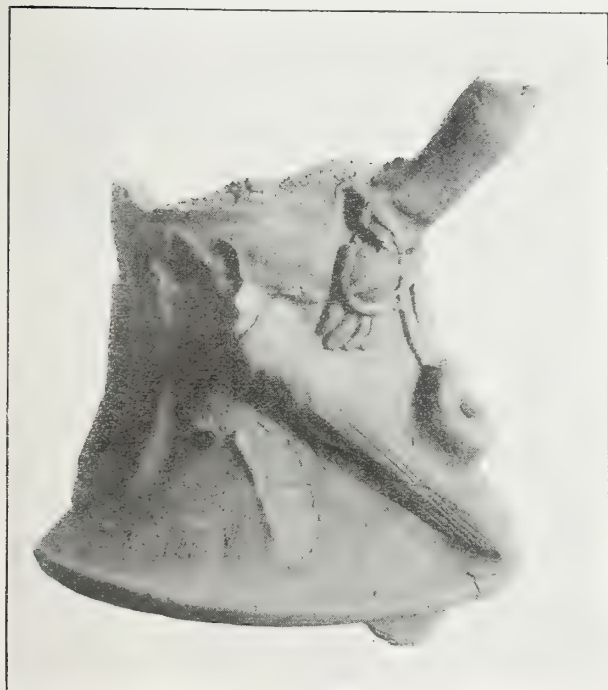


Fig. 365.



IMPERIAL UNIVERSITY COLLECTION

Fig. 366.



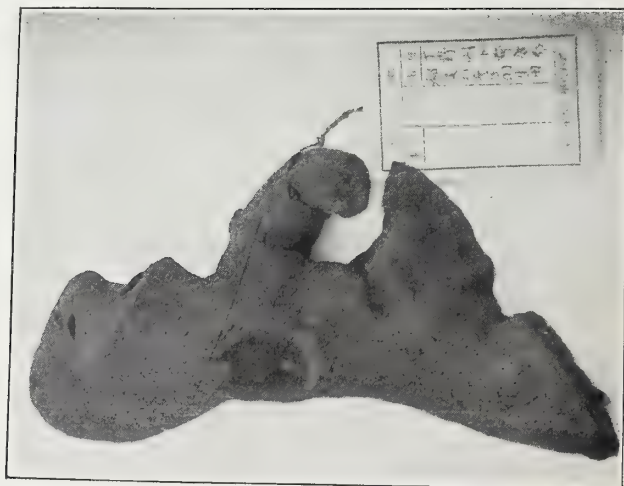
IMPERIAL UNIVERSITY COLLECTION.

Fig. 368.



IMPERIAL UNIVERSITY COLLECTION.

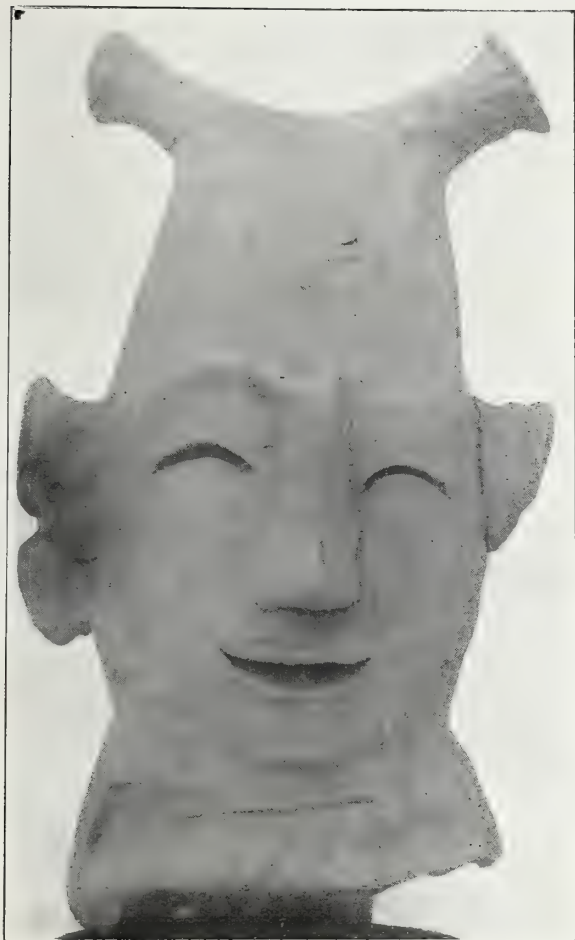
Fig. 367.



IMPERIAL UNIVERSITY COLLECTION.

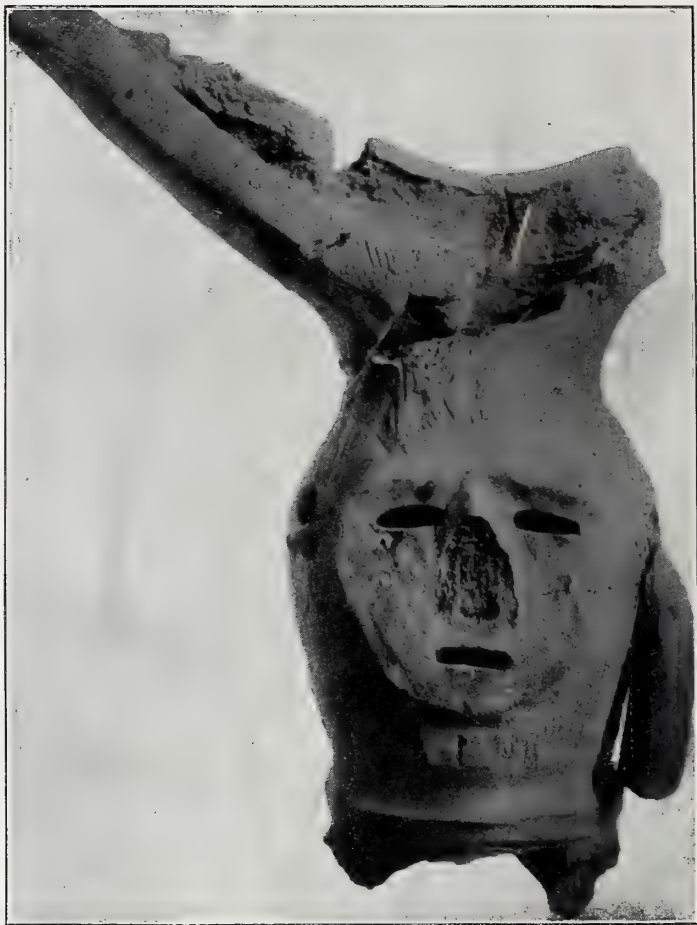
(About Half Size.)

Fig. 369.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 370.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 371.

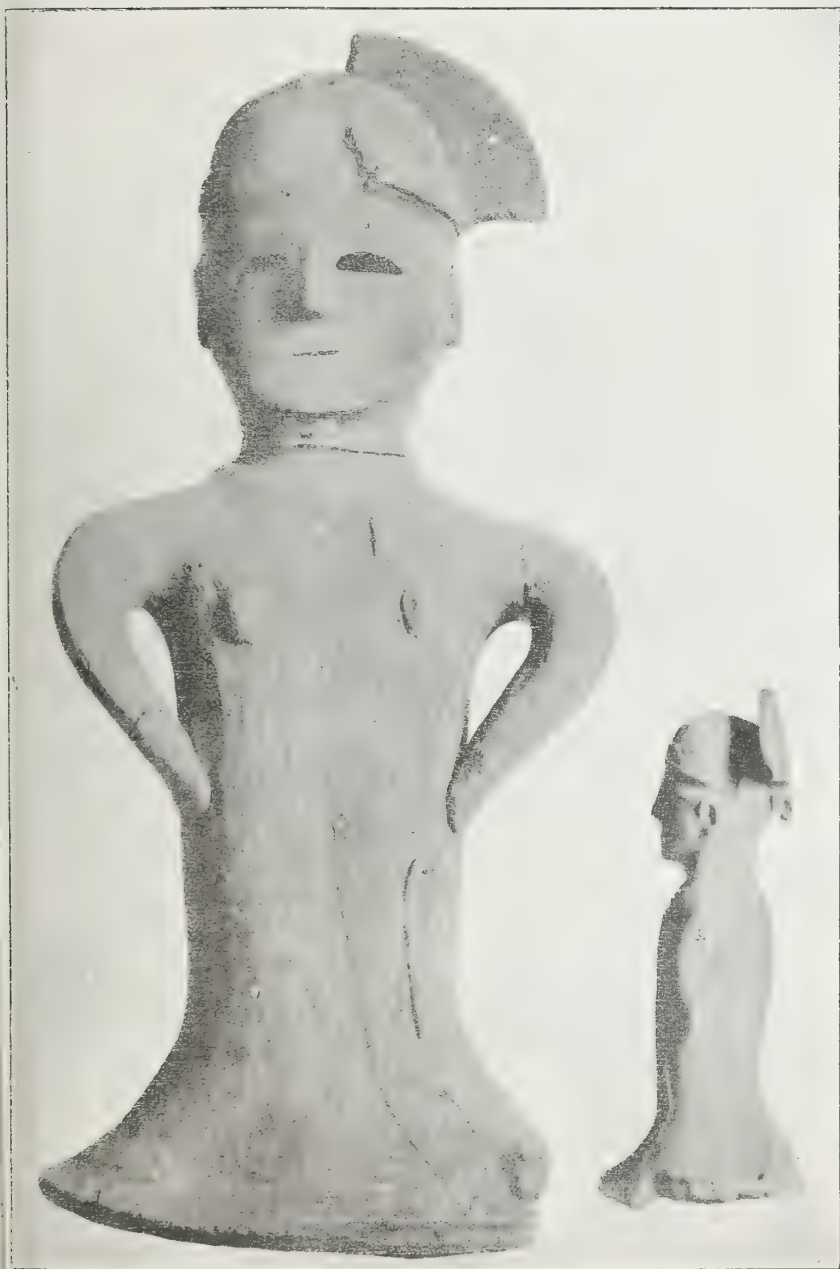


Fig. 372.



Fig. 373.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 374.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 375.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 376.



TOKYO IMPERIAL MUSEUM.

Fig. 377.



IMPERIAL UNIVERSITY COLLECTION

Fig. 378.



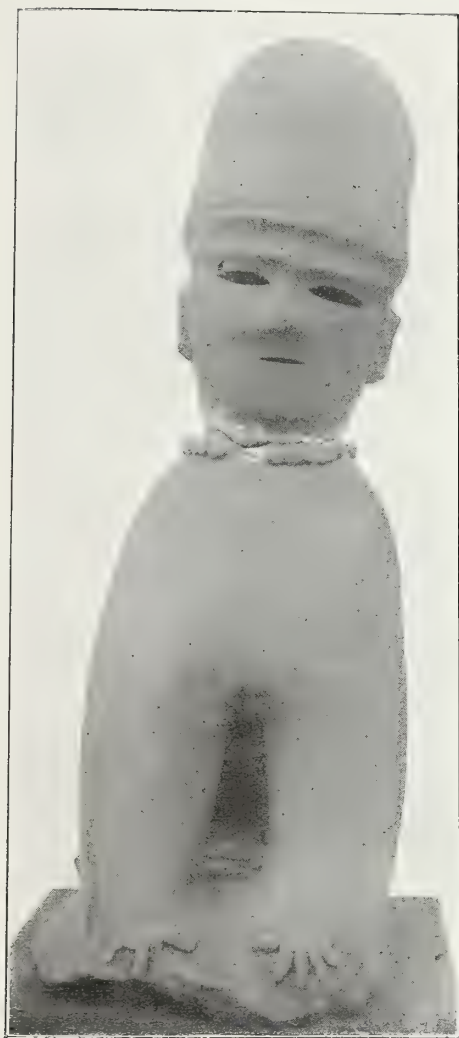
IMPERIAL UNIVERSITY COLLECTION.

Fig. 379.



TOKYO IMPERIAL MUSEUM.

Fig. 380.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 381.



TOKYO IMPERIAL MUSEUM.

Fig. 382.



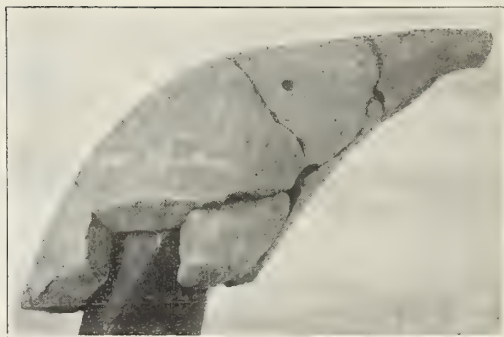
TOKYO IMPERIAL MUSEUM

Fig. 383.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 384.



IMPERIAL UNIVERSITY COLLECTION.

Fig. 385.



TOMO.

Fig. 386.



TOMO ON ARM.
TOKYO IMPERIAL MUSEUM.

Most of the specimens here shown are from my collection but some highly interesting pieces are selected from those in possession of the Imperial Museum and University.

The most common form is a dish with a cover often carrying a knob, Fig. 309. These dishes are of coarse unglazed hard earthenware, undecorated, unless the residual lines from the wheel be regarded as such. In most of the *Iwaibe* there is a tendency for these lines to be conspicuous, as if to invite attention to them. Bowls are of slightly varying shapes but the size is fairly uniform and rarely exceeds 8 in. in diameter. The bottoms may be round, flat or raised, Figs. 309—13; Fig. 310 No. 2, is perhaps a later type. The parallel grooves on it are found also on the ancient ware of Seto in the province of Owari, and also a spiral mark on the bottom. The latter is not uncommon on the *Iwaibe* pottery.

The Tazza (mounted dish or bowl) is usually from about 4 in. to 8 in. in height, Figs. 315—19, but is occasionally much greater. Fig. 317 is 22½ in. (57 Cm.) in height with a diameter of 15½ in. (39.5 Cm.). It is of unglazed terra-cotta. Tazza may or may not be provided with lids. Probably some, as those in Fig. 318, were used as cups.

Fig. 319, a cup or chalice of tazza form, is notable on account of the comparative length of its pedestal and the form of the bowl, altogether a graceful vessel. Fig. 320, No. 2, may also be regarded as a cup and No. 1, of Korean form, is interesting on account of the handle, which resembles that of Europe. The form shown in Fig. 321, is, together with the

three former, of rare occurrence, and is known in terra-cotta as well as in the classical paste. The handle, designed as a thumb rest, is decidedly curious. A somewhat similar handle has been seen in primitive pottery.

Fig. 322 is a cup in imitation of a horn vessel, an interesting survival of a world-wide contrivance.

The jar varies in height from a few inches to over a foot, and is sometimes provided with a lid, Figs. 314, 323—26 and 327. According to its ornamental intent, it approaches the vase. Compound vessels, apparently for ceremonial or convivial purposes, have been found. A curious cluster of jars is kept in the collection of the Imperial University, Fig. 327.

The isolated pedestal is rare and was probably a ceremonial object. Its intention was evidently to support a bowl or vase with a round bottom, as in Fig. 329. The specimen seen in Fig. 328 is, so far as I know, unique. It measures $23\frac{3}{4}$ in. (60 Cm.) high and 11 in. (28 Cm.) across the base.

As above intimated, the jar and vase are differentiated chiefly by the degree of ornamental effect, as in Fig. 329 where a question of finish, or the possession of a pedestal, decides one's opinion.* In Fig. 330, No. 1 would be classed as a jar, but No. 2 as a vase. An effective but peculiar decoration, *Komochi* or "child-bearing," resulted from the addition of small jars to the shoulder of a large one, Fig. 332, and the effect was greatly enhanced by placing human or animal

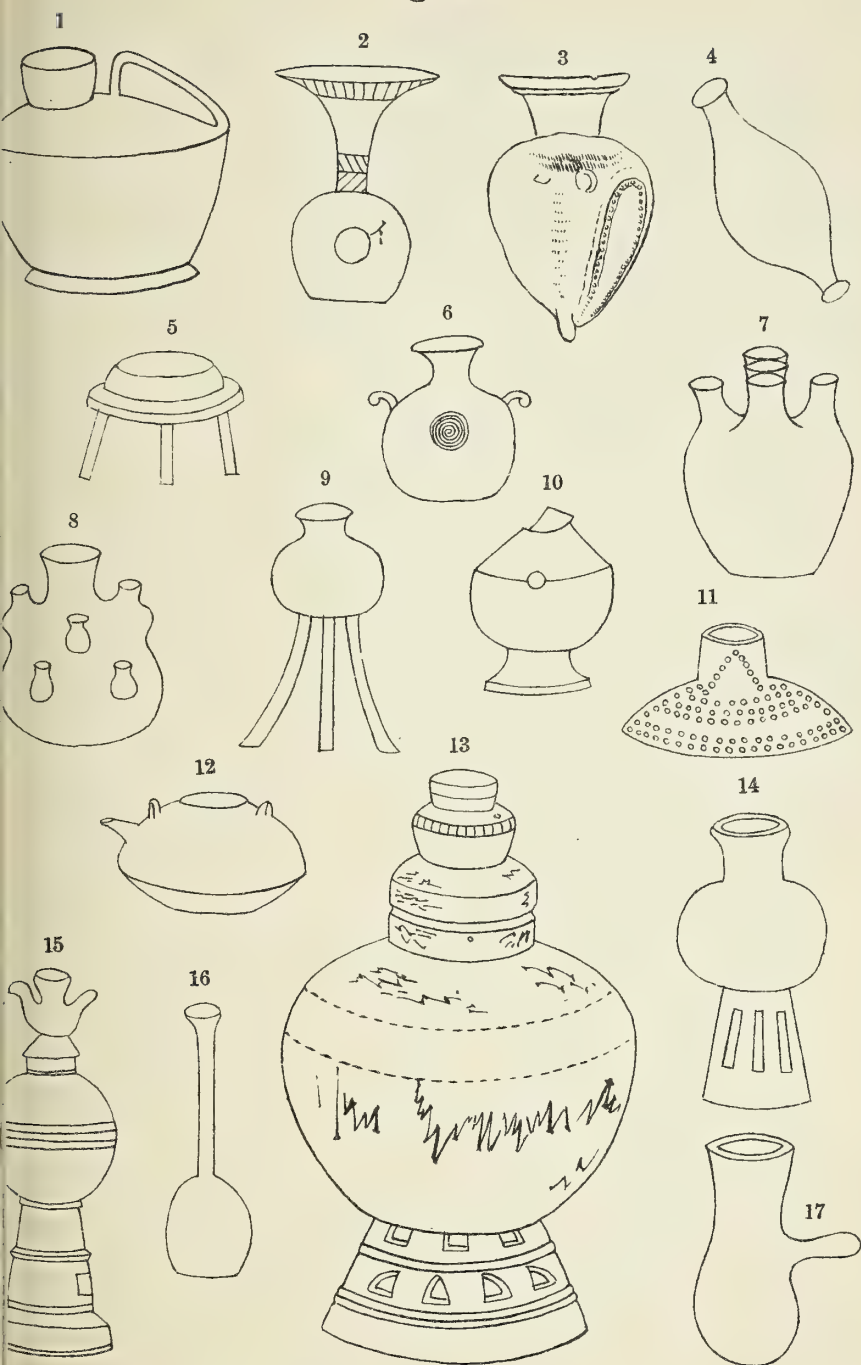
* Some of the vases resemble those of Egypt. I have several in my collection of the shape shown by Prof. Maspero in his "Egyptian Archaeology." p. 320.

figures in high relief between the former, Figs. 333—35. Occasionally figures only were employed, Fig. 336.

Although any of the large jars might have been used for the storage of water or other beverages, there can be no question that Figs. 337 and 338 were specially designed for this purpose. The same form is known throughout Asia and in the Levant and dates back for thousands of years. It may be a survival of the water-skin. I am inclined to suppose that the decoration on Fig. 337 is conventionalized after a sheared sheep-skin. Similar forms of less size, flattened at one end, Fig. 338, or at both, and provided with loops for handling, occur in the tombs.

There are several shapes of bottles and many slight varieties. The neck may be central or excentric, Figs. 331 and 339—43. The form may resemble the barrel shape, Fig. 340, No. 2 (which has a lenticular appearance in the photograph, because it has been shown end on, to exhibit the pattern); or it may be modelled after the dish with lid, Fig. 343. In Fig. 341, No. 1, and in Fig. 343 No. 1, what appears to be the survival of the lid knob is seen. In one of my specimens the neck is surrounded by these buttons. The neck of Fig. 342 has wilted during firing. In Fig. 344 we again see the adhesion of small vessels to larger ones, *Komochi* style. Probably it had a felicitous intent. Flasks are either lenticular or triangular, the latter very rare. The lenticular flask, Fig. 345, No. 2, usually has loops for suspension; sometimes these (No. 1), are contracted to hooks. Occasionally a conventional knob only is left, as with the bottle, Fig. 340, No. 2. Fig. 346 is a highly interesting specimen,

Fig. 387.



RARE FORMS OF IWAIBE.
(Mostly from the K. K.)

evidently imitated from a leather bottle. Fig. 347 is a similar specimen from the Imperial Museum. This form may be traced from China to Egypt.

The drinking or libation vase, Figs. 348—50, is provided with a hole for the insertion of a spout, probably of bamboo. A vessel of almost identical form is used in India with a long spout of bamboo, or wood. This might have served as a libation vessel. In the Sumerian pictograph which seems to be a vessel with spout, stood for "libation," while this figure was one of the signs for "offering." In Persia a spouted vessel is employed both for drinking and for lustration. In the case of some beverages the



Fig. 388.



spout seems to add relish to the act of drinking, as in imbibing a cool draught through a straw. Figs. 387 No. 12, and 388, show vessels with spouts which are exceedingly rare. I have one in my collection with a spout slightly though unquestionably formed. These vessels resemble in this respect what I have called the "nipple pots" of the

primitive culture. The various forms of hookah recall the Yamato drinking vessel with its bamboo spout; it becomes a question whether these are not survivals. In Fig. 351 one sees again the ornamental effect of small vessels superadded to the main one. Some rare and curious forms of Yamato

pottery are outlined in Fig. 387. Among these we observe a bottle with handle (1), a spindle-shaped tube (4), a pot (5) (which form has also been found in *Haniwa* paste), a libation vessel with lid (10), a drinking or libation pot resembling those of the primitive culture (12), a vase with lid in the form of a jar (13) and one with a lid surmounted by the semblance of a bird (15).

The decoration of the Yamato pottery demands a few words. The colour, as I have said, is always monotonous and the decoration is meagre and severe, with the rare exception of the moulded figures added to vessels of the classical type. The decoration consists of:—

1. Impressions of textile and particularly of imitations thereof.

2. Simple patterns composed of lines, dots and circles.

3. Circular and triangular patterns excised partly or completely through the thickness of the clay.



4. Figures in high relief.

(1). Such impressions are seen in Figs. 325, 326 and 340. The latter is an actual imprint, but these patterns are usually conventional survivals, as I have ascertained by taking reverse impressions in potter's clay. Here is a difference between the decoration of the primitive culture and that of the Yamato. In the former the imprint is usually real, though occasionally conventional, in the latter the opposite is the case. The pattern in Fig. 337 may perhaps be an imitation of a shorn sheepskin.

(2). The Yamato patterns have advanced far past

the stage of actual pictorial representation. They have degenerated into simple line ornamentation, which suggests "propagation" from a centre of more ancient and stable civilization than that of the Yamato hordes; similar forms and decorative motives occur in the pottery of ancient Greece. The decoration comprises lines turned on the wheel, single lines, or parallel lines with or without vertical or oblique lines between. The intervening lines are often made up of dots and sometimes dotted lines are employed, short or long, horizontal, vertical, or oblique. The lines are frequently wavy: they are often in parallel, as if produced by a comb, a feature of the Intermediate ware and seen occasionally on the primitive pottery as well as on that of other lands. In the Sumerian inscriptions wave lines sometimes stood for vegetation. It is highly probable that the spiral lines on the bottoms and sometimes sides (Fig. 345 etc.) were intentionally produced. In this respect they may be compared to the deliberate finger marking on the primitive religious pottery at Nara, surviving at the present time.

(3). The sides of vessels and their pedestals are sometimes perforated in triangular, quadrilateral or circular patterns. The triangular patterns are generally found at the base, whereas the surface is more commodious, Figs. 317, 328, 329, 334, 335 and 336, but occasionally throughout, as in the pedestal, Fig. 328. I may perhaps suggest that the

 triangular pattern symbolises the tomb.  is the hieroglyphic for pyramid; this is a Chinese archaic character for ancestor, evidently a

dagoba or mound.* The quadrilateral pattern may be conventionalized from the triangular, at least the lower ones are usually broader at the base than at the top. The circular pattern is perhaps the sun. In Fig. 334 it will be seen that the circle does not penetrate the thickness of the clay. Here we may notice the circular pattern known as *Chosen-guruma* (Korean wheel), sometimes found on the interior of the Yamato vessels, notably the jars and vases, rarely on the bowls. It consists of a series of concentric circles stamped on the wet clay and usually overlapping. In one of my pieces a series of tri-concentric rings, barely touching, encircle the interior. Prof. Tsuboi opines it to be simply due to the repeated pressure of a piece of wood, in which, by repeated use, the softer cellulose between the rings has worn away and left the impression of the remaining circles. But may not this pattern be sometimes intentionally symbolical of the sun? It is pressed upon the inner surface, not only to mould it, but to resist cracking in the furnace. Possibly it had the intention of an amulet against mischief on the part of the lesser god of fire. It produced a varying density of the clay which lessened the risk of cracking from irregular contraction. I have already reminded the reader that in Egypt, Chaldea and China the ideogram for the sun was a circle with either a smaller one, a dot or a line inside it.

(4). I have seen moulded figures only on the shoulders of vases, which are otherwise identical

* This character sometimes suggests the phallus.

with the ordinary *Iwaibe*. K. Wakabayashi has enumerated 7 kinds of figures on these vases, namely, Horse, Deer, Wild Boar, Dog, Bird, Tortoise and Human. In Fig. 334 the first four are seen on one vase.



Certain marks are found on some of the *Iwaibe* which, presumably, are potters' marks. Some, but not all, of these are traceable either to Chinese characters or those still occasionally used in the Luchus. Reading from left to right those seen above might represent:—the numeral 10, to divine, great, a well, and archaic forms of arrow, mountain, sun, evening (moon) and middle.

The *Haniwa* which has been introduced to the reader's notice, consists of cylinders or tubes of coarse terra-cotta, sometimes surmounted by figures of human beings, occasionally of animals and very rarely of inanimate objects. There is but little variety in the paste, which has a brick red colour of usually rather light shade. It is tempered with coarse sand, rarely, so far as I have seen, with pebbles. The baking is fairly uniform but the middle of the paste is often under-fired, and consequently darker in colour. The *Haniwa* has probably been somewhat softened by prolonged inhumation at depths not sufficient to afford much protection from changes of temperature, moisture and so on. Yet it was probably from the beginning of not harder consistence than the bulk of the primitive pottery. It

is at least as divergent from the classical *Iwaibe* as is the primitive pottery, but it is connected with the Yamato ware by the Intermediate and other specimens of unglazed terra-cotta which are sometimes found in the Yamato tombs. It is usually, but not always covered with striæ as if stroked by a comb while the clay was wet, after the fashion of the Intermediate pottery, and these markings occasionally extend even to the faces of human figures.

I have mentioned the surmise of Prof. Tsuboi that these cylinders were originally copied from faggots or fascines employed to give support to the heaped-up soil of large tumuli. S. Wada is inclined to question this origin. At first sight it would appear self evident that the holes usually seen in the sides of these tubes were for the purpose of inserting bamboo or other transverse supports after the manner of a fence. Prof. Tsuboi has also called attention to the transverse bands on these cylinders which, he thinks, may be a survival of the binding withes or cords, while the vertical striæ represent the twigs of the faggot. S. Wada shows that the *Haniwa* do not all have such holes. He instances the Hitomi mound in the province of Harima, where he found only 3 perforated cylinders out of 26 specimens. He also remarks that the position of the *Haniwa* with reference to the mound is not always that of a support, or of a fence. I think, however, that such differences may be reconciled with the supposition that the *Haniwa* were originally copied from a fascine,* if we

* The reader will understand that the perpendicular striæ do not necessarily represent more than a conventional pattern.

suppose that the account in the Nihongi errs with regard to the creation of *Haniwa* and is applicable only to the surmounting of these cylinders with other figures. It is in the highest degree probable, indeed, that the cylinders were in use as an ornamental adjunct to the tumulus long before they were used to support figures. Their ungainly form, the manner in which various figures have, as it were, been grafted upon them, and the great probability that the idea of substituting earthenware images for a "human fence" was borrowed from an earthenware fence actually in existence, combine to assure us that we have here, as an afterthought, a modification of a pre-existent fashion. We might even see in such specimens as Figs. 354 and 355 the steps of an evolution from the plain cylinder, but such is not necessary; the intention to regard the cylinders themselves as substitutes for living burial is sufficiently explanatory. It is quite evident that the holes in some of the *Haniwa* are merely conventionalized vestiges of the fence. They are not always in the same direction, nor always at right angles, which might have been accounted for by the supposition that some were corner posts of a square enclosure; nor are they always capable of interpretation on the view that they were suited to a circular fence, in which case there would be always some correspondence in the direction of the upper and lower holes. In such cases we must simply assume that the holes were sometimes retained as survivals.

There is usually a slight expansion of the upper

portion of the tube, Fig. 352. Rarely are they of uniform diameter throughout. In No. 2 of this figure, a rather unusual expansion into the shape of a bowl is seen. Another form which might have been used as a pedestal for some vessel, is given in Fig. 353. It is incurved on the top like the pedestal-like portion of No. 2, Fig. 352. Fig. 354, No. 1, illustrates a *Haniwa*, of rather rude finish, with delineation of a human face, while the other, a little more advanced, is wearing *Magatama* round the neck. In Fig. 355 is seen a portion of a *Haniwa* cylinder surmounted by a head of which the mouth, beard and ear-ring are alone remaining. A fin-like projection lower down is meant for an arm. Fig. 356 might be the head of a child. Fig. 357 looks decidedly youthful but the large ear-rings suggest that adolescence, if not adult life, had been reached. The apparent absence of hair is probably misleading as it was difficult to represent properly in clay.* Thus in Fig. 358 it is not to be made out, though the height of the head makes it probable that something more than a bald head was intended. This figure, by the way, is also wearing *Magatama*. A scarf is suspended from one shoulder, perhaps to bear a sword. The raised hand is interesting; may be it was a form of salutation. In Figs. 359—60 the arms are raised in supplicatory or ceremonial attitude. Perhaps the latter originally supported an offering. These figures appear to be wearing a *Tasuki*. (See also Chapter 13).

* See the images of the neolithic phase. On the other hand the early Japanese paintings freely show the beard.

This device, which is said to mean "arm*-help," is a circular band of some woven stuff or soft cord which is twisted like a figure of 8 with the crossed portion behind; the arms go through the loops so as to keep back the sleeves when working. It has been supposed that it was attached to the wrists so as to give support to the arms, but it is probable that it was worn either with a double crossing, in front as well as behind, or in its present form as above stated. A good many *Haniwa* show this latter arrangement, e.g. Figs. 361 and 372, but I have seen none connecting the wrists and shoulders. In Fig. 362 the hair is seen to be parted in the middle with a coil or knot over the ear, a similar arrangement is shown in Fig. 364, No. 1. Fig. 363 has rather a remarkable resemblance to one of the pictures of Napoleon. The ear-rings, of course, must be counted out. No. 2 of Fig. 364 may represent hair, but perhaps a cap with ornament. The ear-rings are large. In Figs. 367 and 368, No. 1, the hair is not clearly shown. The former is probably the smallest *Haniwa* image known. The figure appears to be in a suppliant attitude, so perhaps is Fig. 380. In Fig. 368 both are wearing beads. In No. 1 the hair is not shown; in No. 2 it is gathered into a coil on the top and in all probability one on either side, though the right side is incomplete. The use of a small ear-ring to suspend a larger one is well demonstrated in this specimen but one cannot be sure that the weight was not sometimes borne,

* Or hand. This may be a "Volks-etymologie," as I have recently suggested, T.J.A.S. Vol. XXXVIII, Part 3.

at least in part, by the side coil, as in the case of the wigs of the Egyptians. In Fig. 365 is seen another form of the top-knot or coil, with its retaining cords or ribbons. Figs. 369 and 370 probably represent styles of coiffure, in imitation, possibly, of horns or crescent moon. A cup-bearing figure is seen in Fig. 372, but the head gear and necklace do not seem to betoken a menial position.* It, however, is wearing the *Tasuki*, crossed in this case behind in the modern fashion. Fig. 373 is clearly performing, in a manner rather acrobatic but not inappropriate to this culture stage, a purely domestic function, namely, carrying water in a vessel on the head. This was probably not the duty of a housewife or daughter in the station of life indicated by these remains. Yet the presence of the necklace and comb jauntily set on the side of the head suggests some one above the scullion grade. Fig. 374, No. 2 is also wearing a comb, set upside down. The Japanese comb is commonly inserted with the teeth in an upward direction. This representation is conventionalized on account of the material and the capacity of the artist. A volume might be filled on the comb as an amulet and as an adjuvant in the myths and legends of various lands.

Quite a number of the *Haniwa* have some kind of head covering. This will be noticed in the following chapter, so that we need but note the low and high crowned styles in the last figure, and those of Figs. 375 and 376. These images, which are wearing neck-

* The Kojiki tells us that "Princess Miyazu lifted up a great august liquor-cup and presented it" to Yamatodake. (Chamberlain's translation p. 225.)

laces of beads, are distinguished by something else to which attention may be called, viz. the bunches on either side of the head, behind the large ear-rings. If we compare these with the top-knot, Fig. 365, there can be little doubt that they signify an arrangement of the hair, in side bunches or coils. The full robed figure is so uncommon that Fig. 371 possesses much interest. It is a female figure with an extraordinary hair arrangement seemingly in the form of a bow; it is provided with ear-rings and necklace, and is robed in a long gown with close fitting sleeves, which is closed at the left of the middle line by folding over the left side of the garment. At the present day, except among some Ainu, the *Kimono* is folded from left to right. Several *Haniwa* have been recovered showing the wearing of iron armour, but the specimen in Fig. 377 perhaps had some leather protection for the shoulders and upper arms, possibly with metal plates sewn on it. The head covering is doubtful, but I take it to be a metal helmet with the rivetting studs showing as a decoration. Fig. 378 probably shows a studded iron helmet with neck guard, and Fig. 379 a helmet, perhaps of metal. It will have been noticed that the faces seen on these images by no means present a typical Mongolian type. On the contrary some might easily pass for European faces, and they prompt the query whether the Yamato were not allied to the Caucasian race. What is not obvious in these illustrations, on account of the red colouring being much worn and (in a photograph) not easily distinguished from the terra-cotta surface, is the evidence of face painting

presented by many of the *Haniwa*. I shall adduce some illustrations of this in Chapter 13. A curious specimen, Fig. 380, appears to represent a figure kneeling with the head raised. By some this has been supposed to be only half human; possibly the classical story of the Hayato, who, when conquered by the Yamato, were compelled to provide palace guards, and who, according to the "Engishiki," on certain state and festival occasions, barked or howled in chorus, might have suggested this conception. Probably, however, the crude technique of the fictile art is accountable for the dubiety concerning this kneeling figure. The head is covered with a coif on which the triangle is painted in red and white; a necklace of beads is also shown. A highly interesting specimen of a horse is kept in the Imperial Museum, Fig. 381. The saddle, bridle, stirrups and bells are all to be seen and give a vivid presentation of the outfit and trappings of a Yamato horse. A fragment in my possession shows a *Suzu* attached to the saddle. This figure may be taken to furnish an instance of substitution for actual burial, despite the fact that horse bones have not yet been found. The figures of large birds such as swans or geese, Fig. 382, are rare. Figs. 383 and 384 are probably intended for hare and boar respectively.

Among inanimate objects specially represented in *Haniwa*, the most important is the *Tomo*, or arm guard, Figs. 385—6. Though playing the part of the left arm-guard or gauntlet *tab* of the European archer, this device is something more, as it was specially designed to enhance the sound caused by

the impact of the bow string in its recoil. The derivation of the word *Tomo* is obscure; possibly it is connected with *Te* or *Ta*, a Yamato word (still used in compounds.—Brinkley), a hand. There are, however, other possibilities and the remainder of the word is still more doubtful.* Fig. 389 shows a ceremonial form which is kept as one of the treasures at Ise. Probably these were employed in the religious drama such as the meeting of Amaterasu, the Sun Goddess, with Susa, the Storm God. When preparing for his reception Amaterasu “likewise took and slung at her side a mighty and high (-sounding) elbow pad, and brandished and stuck her bow upright so that the top shook, and stamped her feet into the hard ground up to her opposing thighs, kicking away the earth like rotten snow, and stood valiantly like unto a mighty man.”† The Nihongi and Manyōshū also refer to the *Tomo* in its sounding capacity. The latter gives a short song attributed to the Empress Gemmyō in the 1st year of Wado in which soldiers are spoken of as sounding the *Tomo*, which act is spoken of as “defensive as a shield.” This sounding of the *Tomo* is so persistently dwelt upon in the ancient classics that the bulb of the *Tomo* must have been an effective resonator. It is prominent in the *Haniwa*, Fig. 385. See also Figs. 389 and 390. In Fig. 386 a *tomo* is seen adjusted to the fore arm, above the wrist, and in Fig. 366 a

* It is not impossible that the root *Ta* (in Ainu *Ta* to strike, *Tata* to chop—Batchelor) which enters into the Japanese word *Tatuku*, to strike, beat (e.g. a drum), is concerned with the origin of *Tomo*. According to the “Teiyo Zakki” the *Tomo* was more anciently called *Kara*.

† Chamberlain’s *Kojiki*. p. 46.

similar looking object is suspended to the wrist.

Fig. 389.



According to the Engishiki the outer portion was made of bearskin and the inner of cowhide, the former piece being about 10 in. by 6 in. It was held to the arm by a ribbon or cord of "twisted thread." The Tei-jo Zakki says that the *Tomo* kept as a "divine treasure"

Fig. 390.*



is made of deer skin while that kept in the "Great Shrine" (at Ise) Fig. 389, was washed over with chalk on which is the pattern painted in black. According to the Engishiki this is contrary to ancient custom, whereby the *Tomo* was coloured black with the decoration in white. This decoration was in the form now known as the *Tomoe*. It has been surmised that the elements of this pattern represent the *Tomoe* itself, but the name *Tomoe* was probably regarded as the *Tomo*-e or picture of the *Tomo*, in the sense of its being found on that article. It is now commonly found on drums, which may be reminiscent of the sounding *Tomo*. K. Takahashi has shown me several illustrations of bronzes as early as the Chow dynasty in which a pattern not unlike the *Tomoe* is found, but the resemblance may be casual. I have lately come to the conclusion that *Mitsudomoe* is a mistranslation and corruption of "Sandom" the sun god, symbolized by the Triskelion, of which this pattern is a conventionalised survival.

* Figs. 389-90 are from the Shakai Jii. The former is said to be a "ceremonial," and the latter a "military" *Tomo*.

CHAPTER XIII.

SOCIAL LIFE AND RELATIONS.

Though lacking in variety and not always of self evident function, the material vestiges of the Yamato convey an impression of kinship to the civilization which we are accustomed to regard as our own. Intimate familiarity with the uses of swords, armour, horse gear and so forth, brings us into sympathetic relation to this iron culture. But the weapons and implements of the neolithic phase, admirable though they be in view of the available material and technique, are so conspicuously unlike what we are accustomed to that they emphasize divergence from, rather than claim affinity with, the advanced culture of modern times. From the superficial acquaintance thus afforded we are tempted on the one hand to credit the Yamato with a culture more mature than is their due, while on the other we are apt to depreciate that of the primitive natives.

The considerations about to be offered will to some extent modify our first impression of the Yamato culture, but will leave a sense of familiarity which is denied to us in the case of the primitive life. With the former we have some amplification from the survivals recorded in the early classics, which reveal

a state of culture conformable to protohistoric and not far removed from prehistoric times. In estimating the latter we have no written record to guide us. Beyond the relics themselves and analogy with communities still in a backward stage of progress, there is little information upon which to base an estimate of the actual life history of the primitive folk. Those, however, who have lived in intimate contact with and have tried to understand the inner life of primitive communities know that the degree of culture witnessed by the neolithic relics in Japan is compatible with a social and ethical status little short of that revealed by the early historical references to the Yamato people. Divesting ourselves of prejudice in favour of the latter, it must be admitted that their relics are not sufficient to establish more than a somewhat immature iron culture, such as is known to have existed with otherwise primitive features in various instances of inferior barbarism. Moreover, the construction of their sepulchres is in harmony with the neolithic and early bronze stages in Europe, while the almost total absence of writing in the remains which have been preserved, may be taken as a proof that this art existed in a very limited degree, even in protohistoric times. It may be questioned, whether, in a work dealing with the prehistoric culture of Japan, it is proper to use material derived from sources which are reputed to be, and which are in some degree, historical. But if we may postulate the Wado period, representing the beginning of the 8th century (708 A.D.) as the half-way stage between

the commencement of the Yamato advent and now, we may safely assert that of the twelve centuries preceding this period not more than three can claim to be regarded as in any sense historical. Three fourths of this epoch belong to the realm of tradition, legend and myth, which reach into the remaining fourth as a mixed leaven of the probable, the improbable and the impossible. It need not be supposed, however, that the material presented in the *Kojiki* and *Nihongi* is altogether unreliable or destitute of value for the student of sociology or even history. On the contrary its value, for the former at least, can scarcely be overestimated. We may rest assured that no serious manipulation of either of these documents has been attempted since their original publication and that all things or events mentioned in their pages existed, occurred, or were conceived of prior to 720 A.D. For the archæologist a store of named objects is available with sometimes a description of their special purpose; for the student of folk lore, religion, or sociology, a veritable mine of surmises, myths and customs; for the scholar, a language of marked individuality yet widespread affinities, and even for the historian much that is of interest and, as regards the later centuries, worthy of credence.

One cannot attempt here to analyse the stratification of material by the historians of the Wado period, or otherwise to assign a more plausible order for the things and occurrences related in the classical writings. We must forego any attempt to differentiate between the prehistoric and the protohistoric elements in the *Kojiki* and *Nihongi*, on the grounds of

comparative criticism. The historical portions are less difficult to unravel, but concern us mainly in regard to matters which presumably anteceded them, or as elucidating relations between the Yamato and the primitive people. I have ventured to exercise a certain degree of selection with regard to the material, but this has been on archæological rather than on critical grounds and I have even introduced legendary matter which seems to correspond with the archæological evidence available. I have taken the view that such matter is not necessarily untrue because unhistorical, and that it may be accepted when supported by collateral evidence. The extent of its correspondence with archæological facts must be our measure of its veracity.

Of other sources utilised to some extent in the following remarks, the Manyōshū, which has been referred to, is the most fascinating and in some respects the most valuable. This anthology, the translation of the longer lays of which we owe to F. V. Dickins, along with an introductory account of the "Manyō Age," was probably a gradual compilation between the 8th and 9th centuries, but many of the poems are of earlier origin. It is open to question whether any are earlier than the commencement of the protohistoric era (5th century). If so, they must have been specially selected, because the Manyōshū songs are singularly exempt from the indelicacy which stigmatizes many verses of the Kojiki, but which is much repressed in the Nihongi, as out of keeping with Buddhist teaching and the literary example of China. The purified anthology would, therefore,

contain a suggestion of composition or selection after the publication of the Kojiki, while it clearly betrays an origin from the educated atmosphere of the court. It is, however, sufficiently near the prehistoric era to comprise some survivals, and is redolent of ancient Japan. I have therefore given a few quotations from the above translation which, if sometimes appearing in a less primitive garb than the original, well merits the further acquaintance of the reader.*

The translation of the Shinto Rituals by Sir E. Satow and Prof. Florenz, the *Isho-nihon-den*, a record of foreign opinions about Japan, collected by K. Matsushita and now edited by H. Hondo (some portions of which were translated by Aston), together with "The Early Institutional Life of Japan" by K. Asakawa, are also indispensable to an enquiry into ancient Japanese life. The following is but a superficial sketch.

Regarding habitations, we have already noticed in Chapter 3 some references to pit dwelling in the ancient classics, and have briefly considered the construction of this type of dwelling, its persistence at the present day and its modified survivals. According to the Yamato Mono-gatari (Yamato Tales), quoted by Prof. Chamberlain:—"In olden days the people dwelt in houses raised on platforms built out on the river Ikuta." There is also a vague hint in the Kojiki of something of the kind. At Nara there is

* It is to be hoped that the *Tanka* (short lays), of the Manyōshū will also find a translator. Though less amenable to direct translation, they are worthy of the attempt as they are characteristically Japanese, and contain not only many flashes of light on early custom and thought, but some material for archæological and other research.

still a store-house extant, erected on posts like those of the Ainu; many shrines are erected on pillars, notably at Ise where the most ancient type of dwelling has been perpetuated. On the banks of rivers and on the shores of lakes and the inland sea, houses may be seen built partly on piles and overhanging the water. According to the interpretation of Sir Ernest Satow* the dwelling of even the highest in the land "was a wooden hut, with its pillars planted in the ground, instead of being erected upon broad flat stones as in modern buildings. The whole framework, consisting of posts, beams, rafters, door-posts and window frames, was tied together with cords made by twisting the long fibrous stems of climbing plants, such as *Pueraria Thunbergiana* (*Kuzu*) and *Wistaria Sinensis* (*Fuji*). The floor must have been low down. There seems some reason to think that the *Yuka*, here translated 'floor,' was originally nothing but a couch which ran round the sides of the hut, the rest of the space being simply a mud floor, and that the size of the couch was gradually increased until it occupied the whole interior.† The rafters projected upward beyond the ridge pole, crossing each other as is seen in the roofs of modern Shin-tau temples, whether their architecture be in conformity with early traditions (in

* T. A. S. J. Vol. 9. pt. 2, pp. 191-2.

† Perhaps the couch encroached from one side only. The homes of the peasantry still have a space of beaten earth on one or more sides of the raised platform which is covered with *Tatami* and sometimes enclosed with sliding screens or *Shoji*, thin paper stretched over the panels to admit some light. The *Tatami* are mats of straw about 2 in. in thickness, 6 ft. in length and 3 ft. in breadth. *Tatami* also means the act of folding, which conveys a hint that the articles in question were not always permanently disposed on a raised floor.

which case all the rafters are so crossed) or modified in accordance with more advanced principles of construction, and the crossed rafters retained only as ornaments at the two ends of the ridge. The roof was thatched and perhaps had a gable at each end, with a hole to allow the smoke of the wood fire to escape, so that it was possible for birds flying in and perching on the beams overhead, to defile the food, or the fire with which it was cooked." To this description Prof. Chamberlain adds:—"the wooden doors, sometimes fastened by means of hooks, resembled those with which we are familiar in Europe rather than the sliding, screen-like doors of modern Japan. The windows seem to have been mere holes. Rugs of skin and rush matting were occasionally brought in to sit upon, and we even hear once or twice of 'silk rugs' being used for the same purpose by the noble and wealthy." * Latrines are spoken of in the *Kojiki* and *Nihongi*, and both mention the *Ubuya* or parturition house which tradition, and perhaps etymology, indicate as having been originally a *Muro*.† The idea of impurity has been associated with childbirth in too many examples of early culture to need illustration; it still exists in modern civilization. In more primitive days it was presumably expedient for the mother to occupy a separate hut or *Muro*, the family residence being infective. The custom of isolation in a separate dwelling persisted as a conventional usage into recent times. Sir Ernest Satow has given an instance of this

* Introduction to his translation of the *Kojiki* p. xxvii.

† See p. 80.

survival in the island of Hachijo where the huts were formerly built in exposed situations away from the home.* Special nuptial huts are mentioned in the two classics and the Manyōshū, the consummation of marriage involving ritual impurity.† The custom of changing the Imperial residence on the decease of a former sovereign, which prevailed till about the 10th century, was probably connected with ritual impurity, based perhaps on the fear of dispossessing, or being in proximity to, the disembodied personality.

The term *Inaki*, which is literally rice castle or keep, has given rise to much discussion, but I think we are justified in regarding the name as sufficiently descriptive of its standing. A fortified granary was a provisioned fortress, guarding not only the means of sustaining its garrison but also the power which belongs to wealth. For rice was not only a staple food but a form of currency and the medium through which the bulk of taxes was levied. K. Hamada has remarked that the word *Nedan*, meaning value, price, is derived from *Ine* (rice-plant, or unthreshed rice).‡ While there is evidence that cloth was also used as a medium of exchange, I believe that this was subsidiary and that rice was a favourite standard of value previous to the establishment of coinage during the Wado

* T. A. S. J. Vol. 6, pt. 3. pp 455-6.

† Perhaps surviving in the "honeymoon." May not the word be associated with the idea of shame as in *honte*?

‡ In Egypt and Chaldea taxes were collected in grain. In the Philippines unthreshed rice is still used as a medium of exchange (The Bontoc Igorot by A. E. Jenks pp. 154-55).

Fig. 391.



FIGURES ON AN ANCIENT BOW.
IMPERIAL HOUSEHOLD COLLECTION.

Fig. 392.



FIGURES ON AN ANCIENT BOW.
IMPERIAL HOUSEHOLD COLLECTION.

period; it even proved acceptable in that capacity for some centuries later. Under such circumstances the stores of the government, or ruling faction, would certainly be strongly held, as would those of independent chiefs. The "rice castle" was a strategical factor of no little importance and the term *Inaki* became in time an official title. Castles in general are spoken of, but no description is given.

"In the use of clothing and the specialization of garments," says Prof. Chamberlain, "the early Japanese had reached a high level. We read in the most ancient legends of upper garments, skirts, trowsers, girdles, veils and hats."* We do not know with certainty what costumes were used during the purely prehistoric era. It has been ascertained that China, the preceptor, lent her fashions in dress, as well as her literature and art, to the young civilization. Loose garments and especially flowing sleeves are traceable to China and perhaps did not long antedate the period of Wado. None of the *Haniwa* figures that I have seen have loose sleeves. These give otherwise but little definite information about the style of dress, as in nearly all cases the upper part of the body only is seen, the lower blending with the *Haniwa* cylinder. But they all seem to agree in exhibiting none but tight fitting sleeves, or possibly bare arms. The use of the *Tasuke*, referred to in the last chapter, might be held to imply the existence of flowing sleeves which needed to be restrained during manual labour, but this device might also have been employed to close

* Introduction to Kojiki Translation p. xxx.

the dress or adapt it to the figure. In the dress of ancient Greece "a cord was sometimes crossed round the breasts outside the chiton to assist either in supporting them or in bringing out their form."* A broken *Haniwa* shows the legs encased in tight fitting stockings or leggings with something like knee breeches above. In one instance the full length of a robed figure is exhibited, Fig. 371. Here, as previously observed, the dress is folded with the right breast overlapping the left. An ordinance was issued in the 3rd year of Yoro (A.D. 719) advising people to fold the left breast over the right, which custom is still maintained. Figs. 391 and 392 are photographed from pictures belonging to the Imperial Household Department which have been taken from an ancient bow of the Nara period. Others in Fig.

Fig. 393.



* A. Stuart Murray, in the "Encyclopædia Britannica." A decree of the Emperor Temmu (A.D. 682) forbade the stewards and ladies in waiting (*Uneme*) to wear "shoulder straps or scarves." (Aston's *Nihongi*, Vol. a. p. 355). The writer's investigation of this matter will appear in the Transactions of the J. A. S. Vol. XXXVIII, Part 3.

393, also copied from this bow, have been taken from an illustrated article by O. Kosugi, along with Fig. 394.* This writer combats the idea that

Fig. 394.



the prehistoric dress of the Yamato was necessarily long with wide and loose sleeves. From these pictures we gather that trews were worn in the 8th century, along with a kind of skirt or *Hakama*, and that the sleeves, though sometimes long, were not invariably so. These seem to have been worn with a short upper garment or a long robe, the

* *Kōkōgaku Kai Zasshi*. Vol. I. No. 2.

latter perhaps chiefly by women. The Han traveller speaks of a garment put on over the head like the old smock, or the Ainu *Mouri*, but possibly he was referring to the Luchus, to south Kyushiu, or to the common people.

The dress material seems to have been commonly of hemp, but silk was used during the proto-historic era and probably to a slight extent before it.* Some kind of fabric may have been woven from the fibres of creeping plants. A Kojiki legend says :—“The mother, having taken Wistaria fibre, wove and sewed in the space of a single night, an upper garment and trowsers, and also socks and boots.”† The bark of the paper mulberry (*Broussonetia Papyrifera*) was also utilised for the manufacture of cloth. Beating cloth (fibre) is mentioned in the Manyōshiu. There are indications that the skins of animals were sometimes employed as garments. Shoes were made of hide. The Nihongi says, under the date A.D. 644 :—“Happening to be one of a football party in which Naka no Ohoye played at the foot of the *keyaki* tree of the Temple of Hōkōji, he observed the (Prince's) leathern shoe fall off with the ball.”‡

About the commencement of the historic era (A. D. 690) sumptuary laws regulated the costumes to be worn by various classes, particularly in the matter of colour. Thus bright purple, dark red, dark green,

* Coarse and fine silk are mentioned in the Nihongi. It is possible that the former was *Yamamai*, a rather coarse, but warm and durable fabric made from the cocoon of an indigenous silkworm.

† Chamberlain's Translation. p. 262.

‡ Aston's Translation Vol. 2. pp. 184-5.

light green, deep blue and light blue are mentioned in one passage of the *Nihongi*. In another edict the common people are instructed to wear yellow, and the slaves black, clothing (A.D. 693).^{*} In the *Kojiki*, as Prof. Chamberlain reminds us, the only colours that are mentioned are black, white, blue, red and yellow, the last only as part of a phrase of Chinese origin. The word *Ki*, yellow, appears, however, to be of Japanese origin, and various shades of colour were perhaps in use, though not expressly mentioned.

As an outer protection against rain or snow a *Mino* or cape made of grass was employed, with a *Kasa* or conical hat of the same material, or of bamboo. These are mentioned in both the classics. They sufficed for the lower classes, but the gentry, officials and nobility had several kinds of hats or caps, some of which are seen on the *Haniwa* figures. Following the lead of China, these were used to differentiate rank during at least the later protohistoric era. Lacquered hats are spoken of. A cap with vertical peak at the back, with ribbon or cord attached, is seen in Figs. 393 and 394. Perhaps a skull-cap, coif, or kind of fez, is indicated in some of the *Haniwa* figures. Cylindrical caps and possibly a kind of turban or *Hachimaki* appear to have been worn. The latter is still used by the peasantry, artisans, fisher-folk and others, and is an elementary form of the Turanian head gear. Two-horned caps and sometimes those with a flat overlapping crown, square or otherwise, were worn, Fig.

^{*} Aston's Translation. Vol. 2. pp. 397. and 410.

395. Some of the *Haniwa* hats resemble the later lacquered helmets, having a round crown and a projecting rim, Figs. 374—6. The helmets were of various forms, some resembling those of Assyria, Parthia and Greece.

Prof. Chamberlain gathered from the *Kojiki* that "the men seem to have tied up their hair in two bunches, one on each side of the head, whilst the young boys tied them into a top-knot, the unmarried girls let their locks hang down over their necks, after a fashion which apparently combined the two last named methods." * From the *Haniwa* we know that the hair was sometimes parted in the middle and arranged with a coil on one or both sides, and perhaps also on the top. Prof. Tsuboi is of opinion that the top-knot was confined to the male sex. Such specimens as Figs. 358 and 368, No. 1, might signify short or even, perhaps, close cropped hair, though the comb in Fig. 373 suggests no such thing. Short hair, Prof. Tsuboi thinks, was peculiar to men. Other styles have been given by various writers but they do not seem to have been exactly determined. Fig. 369 was probably a coiffure with two coils like those of Fig. 368; Fig. 370 might represent a head-dress of hair or some other material. Chaplets or garlands are mentioned in the *Kojiki*, *Nihongi* and *Manyōshiu*, frequently in the last named. The flowering cherry is most often referred to, but the iris, the willow, the maple and even the oak are spoken of in this connection.

* Introduction to the *Kojiki*, p. XXXI.

A dying song of Yamato-dake hints at the latter as an emblem of completed, or perhaps only mature, life:—"Let those whose life may be complete stick (in their hair) as a head-dress the leaves of the bear-oak from Mount Heguri,—those children!" It has been said that wigs were used by the Yamato, but it may be questioned whether the word *Kazura* carried this meaning in prehistoric times. It originally signified an ornament of flowers, or, perhaps later, of beads or such like, for the head. The word *Katsura* means a vine, such as the Ainu use on certain occasions for personal decoration. In the middle ages it was applied to artificial hair, which meaning is still retained; the evidence scarcely justifies the conviction that wigs were worn by the prehistoric Yamato. The *Hire*, fillet or head band, as known to the Ainu, the Chinese, and indeed almost everywhere, was used in protohistoric times and probably earlier. As previously stated, combs were used and the reader is already acquainted with various personal ornaments such as bracelets and ear-rings, *Magatama*, *Kudatama Kiri-kodama*, and round beads or *Tama* of various materials.

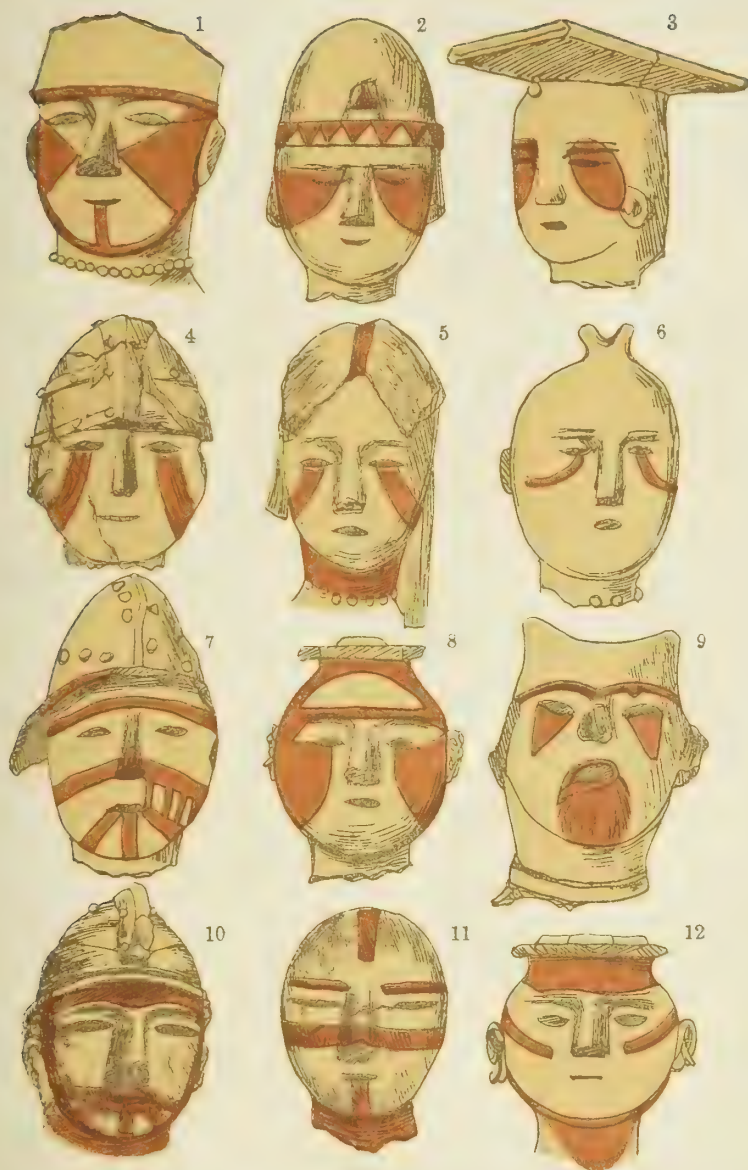
The custom of blackening the teeth prevailed among the married women throughout Japan, with the exception of the Ainu, till the present period of Meiji and is still practised in rural districts.* It is

* The "Black-toothed country" is mentioned in the Later Han notices. It is far from clear that this land was Japan; it might possibly have referred to a Malayan settlement in South Kyushu.

probably of ancient origin. One is naturally inclined to suspect that primitive modes of decoration like this are survivals from the truly primitive life, but it has not yet been demonstrated in this instance. I understand that only one skull with blackened teeth has been found in a Yamato sepulchre. This might be due to the fact that the upper classes used a vegetable dye, while the lower are not represented in the tombs, except as retainers of chieftains. The bones found in the tombs are usually much disintegrated. Even the iron dyed teeth of inferior folk were liable to lose their pigment from oxidation. This custom seems to have been propagated to Japan through the habit of chewing the betel nut. This is not indigenous and appears to have been rather an expensive luxury.

Teeth blackening is known in New Andalusia, New Britain, the Pelew Islands and among the Nicobarese. It seems to be an ancient custom in the Malay Archipelago, from whence it spread to Tonkin and south China. T. Higouchi says that "Ajimasa no shima" mentioned in a song of the Emperor Nintoku, means the island of betel and that the great scholar Motoori explained that the betel was imported from a southern land, where it flourished. As it was beyond the reach of the lower classes, they dyed their teeth by other means. This writer, citing the *Shoko Hatsu* or "Occasional Record" by Fuji Teikan (about A.D. 1781) says that about the time of the Chinese Tang dynasty, the Japanese, finding that it was not a custom of that country, abandoned it, but that it was continued by their

Fig. 395.



HANIWA HEADS
Showing Face Painting.
(Copied from the T. J. Z. and Coloured.)

women.* The Kuge or court nobles retained the practice till the Meiji period.

On the whole it is probable that tattooing was confined to the lower classes. The references are not numerous. The Kojiki mentions an "old man with a tattooed face" who describes himself as a "boar-herd," but whose actions suggest that he was a primitive native or an outlaw. Tattooing is also mentioned as a punishment for treason (perhaps as a degradation to the level of the Yezo) and the members of the "Horse-keepers guild" were tattooed.† According to the Nihongi this compulsory tattooing was afterwards discontinued, but the *Bettoes* or ostlers of Japan, were tattooed up to the Meiji period and the practice is not entirely abolished. It is not unlikely that some of the lower orders of labourers were tattooed as a mark of identification. The Later Han Records state that the Japanese men of that time, A. D. 25-220, all tattooed their faces, but this is probably an exaggeration. Face painting was indulged in by both sexes. In Fig. 395 are seen various styles of face decoration. Red would appear to have been the favourite colour but white pigment or powder seems to be of ancient use. Two black spots on the

* S. Takayama (T. J. Z. No. 206) gives the method of teeth blackening in the province of Mino. Pieces of iron are placed in a pot with sake or the juice of the gourd called *Hechima* (*Luffa Petola*). This is kept near the hearth. The blackening begins two or three days before marriage and is continued when necessary throughout married life. Married women of the better classes begin to use the pigment, which is called *Dashigane* (extracted metal) or *O Haguro* (O, an honorific and *Haguro*, teeth blackening) on the 2nd day of the New Year, with the face turned to the south.

† Aston's Nihongi. Vol. I. p. 305. Perhaps to prevent theft of horses.

forehead were affected by the court nobility of both sexes till a few decades ago, not for embellishment, as were the patches of Europe, but as a sign of rank. Red pigment was not merely employed to heighten the natural colour of the cheeks but was applied in definite patterns which were probably reserved for ceremonial occasions, but which none the less wear a primitive aspect. There is some likeness between the patterns of the apparent tattooing on the primitive image, Fig. 132, No. 3 and those on Nos. 7 and 10 of Fig. 395. The Han Records say that the Yamato used red paint for body decoration as the Chinese used rice powder.

Until the advent of Buddhism, the food of the Yamato, though largely of a cereal nature, as is proven by the paramount importance of rice cultivation, was freely mixed with animal diet. Whether flesh was much partaken of by the humbler classes one cannot say. The probability is that the latter were mainly dependent on the produce of the soil. The edible mammals mentioned are the bear, wild boar, deer, hare, seal, whale, dolphin, mountain goat, oxen and sheep. The last is mentioned as tribute from Pekche (Korea) in A.D. 599, according to the chronology of the Nihongi, and also the six domesticated animals, viz., horse, ox., sheep, pig, dog and barndoor fowl. Aston remarks that this is merely a Chinese phrase and need not be taken too literally, while Chamberlain points out that the sheep was almost unknown in Japan till recently. The ordinary grass of the country is unsuited for the nourishment of sheep, but it is probable that the Yamato

were acquainted with this animal before their migration to these islands. Among edible birds, the common fowl, wild duck, wild goose, pheasant, plover, snipe, lark and pigeon are specially named, but others such as woodcock and quail abound in these islands. In the matter of fish there was a great supply, as there is still, but the *Tai* (a kind of sea bream) perch, trout and tunny are on record. The crab, oyster, *bêche de mer* and cockle are singled out for mention, but we may feel sure that the lavish supply of shellfish on the coasts of Japan was not neglected by the Yamato any more than by the primitive inhabitants. Very few shells have been found in Yamato tombs. I found a fresh water mollusc impregnated with iron in a dolmen in Kyushu, Fig. 2.

As regards vegetable diet we read of rice, millet, barley, beans, ginger, cabbage, lettuce, radish, chestnut, garlic, wild olive, melon, acorn, peach, orange, cherry, seaweed and bamboo, the last two of which are favourites to this day. As special products, *Ame*, a malt extract prepared from barley and millet, and *Sake*, an intoxicating beverage made from fermented rice, are notable. The Records of the Later Han say that the Yamato were addicted to inebriety. Fire was produced by flint and steel but the fire drill was not forgotten. The "fire drill mortar" and "fire drill pestle" are named in the mythological age and are still used for the production of pure fire for ritual purposes. It is generally admitted by scholars that when Yamato-dake "took the fire striker and struck out fire,"* the flint and steel are referred to.

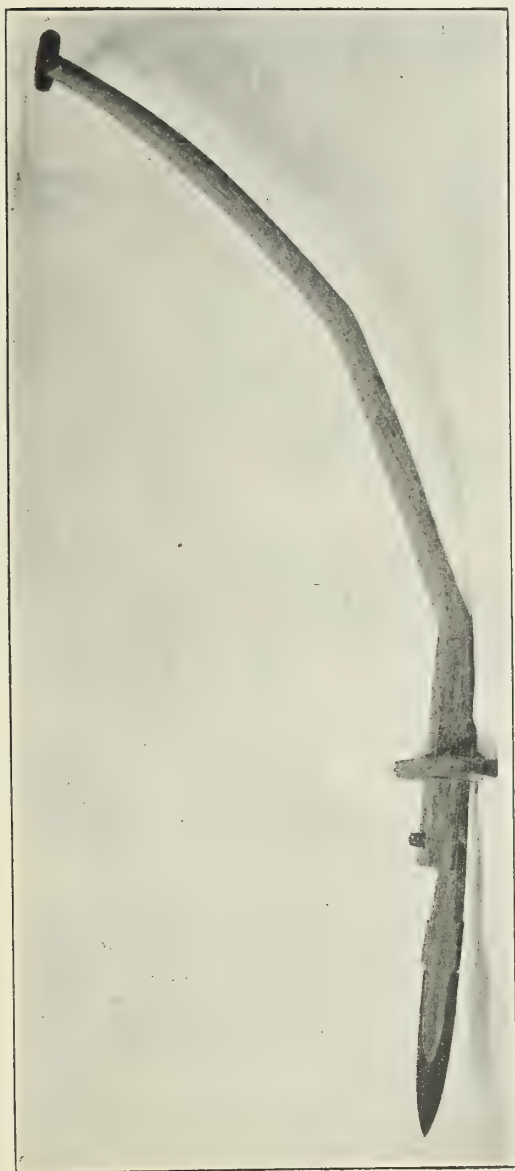
* Chamberlain's *Kojiki*. p. 211.

Of all occupations, that of tilling the soil was the most imperative and the most remunerative. Agriculture and the fishing industry are to-day the chief means of support, one might say the staple industries of the country. On account of the mountainous interior, rice cultivation is carried on mainly in the low country bordering the sea and in the alluvial valleys running up the river basins. There is much mention of irrigation, e.g. the Nihongi speaking of matters under the Emperor Suinin says under its date of 6 A.D. :—"In this year the various provinces were commanded extensively to excavate ponds and channels to the number of eight hundred and more. Much attention was thus paid to husbandry. Thereupon the people enjoyed abundance and the Empire was at peace." To destroy fields or disarrange an irrigation system was a heinous crime. The mythology tells how the Storm God, Sosa no wo no Mikoto, destroyed the rice fields of his elder sister, the Sun Goddess, Amaterasu no Oho-kami. "In spring he knocked away the pipes and troughs, filled up the channels and broke down the divisions."† Sir Ernest Satow has shown that the "Heavenly sins" of the Rituals are chiefly those which are possible in an agricultural community which had descended from Heaven (come over the sea). Prof. Florenz endorsing this opinion says:—"The Heavenly sins seem consequently to comprise all those trespasses

* Aston's Translation. Vol. I. p. 183. "Eight hundred" is a conventional figure. An edict placed by the Nihongi in 36 B.C. is stated to have said:—"Agriculture is the great foundation of the Empire. It is that upon which the people depend for their subsistence;" but Aston says that this is copied word for word from a Chinese history.

† Aston's Nihongi Vol. I. p. 49.

Fig. 396.

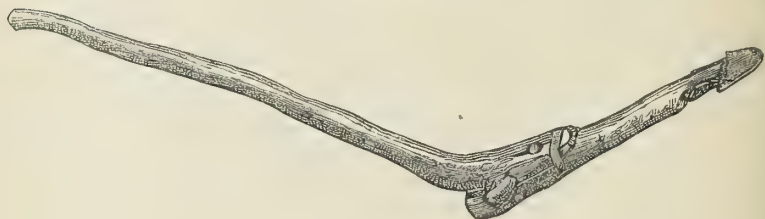


(One-tenth.)

IMPERIAL HOUSEHOLD COLLECTION.

which the Japanese in their most primitive state of society, considered as crimes perpetrated against the interests of the community, and apt to bring down upon them the wrath of the gods." * *Ko-guha* are mentioned, which have been translated as "wooden" or otherwise as "small" hoes. We have already seen that these were sometimes shod with bronze and iron. The *Kojiki* speaks of metal spades. During the protohistoric period a hand plough was used, Fig. 396. A similar implement of crude finish was

Fig. 397.



(The Caschrom, After Gomme.)

used in the Highlands of Scotland within the last century.† Imperial granaries and rice keeps were established in various agricultural centres.

There is no need to emphasize the importance of the fishing industry. Japan possibly exported to China the products of the sea. There is much mention of boats propelled by oars, especially in the *Manyōshū*, but only two decided references to sailing. One of these relates to the passage of the Empress Jingo to Korea. The *Nihongi* says :—"Sail was set

* T. A. S. J. Vol. 27, p. 74. The first portions of the *Rituals* were translated by Satow and the later by Florenz.

† Gomme's "Village Community" p. 280.

from the harbour of Wani. Then the Wind God made a breeze to spring up, and the sea uplifted the billows. The great fishes of the ocean, every one, came to the surface and encompassed the ships. Presently a great wind blew from a favourable quarter on the ships under sail, and following the waves, without the labour of the oar or helm, they arrived at Silla." * The Kojiki reference is more vague and legendary :—" the fishes of the sea plain, both great and small, all bore the august vessel across on their backs, and a strong favourable wind arose, and the august vessel followed the billows." † The Manyōshiu gives in one of its short lays a pretty picture of a sailing craft :—‡

" A fishing boat, wave-tossed on the
sea of Tomo no Ura
Looks as t'were hoisting sail."

Fishing by traps and hooks is mentioned, and we may infer net fishing from vague references and the fact that it was known to the primitive people. Nets were used for catching birds. Sir Ernest Satow's translation of a Kojiki passage runs :—" and stretching a thousand fathoms of paper mulberry rope, will draw together and bring ashore the fisherman's large mouthed and small finned Suzuki " (a kind of perch, the *Percalabrax Japonicus*). Angling and spearing of fish are spoken of, and cormorant fishing was employed on rivers. Several passages refer to

* Aston's Translation. Vol. I. p. 230. Aston says that Wani is in the island of Sushima.

† Chamberlain's Translation p. 232.

‡ Byakku Kai (Brief Explanation of the Manyōshiu) Vol. 7. p. 26.

this in the Kojiki, Nihongi and Manyōshū, the most descriptive being from the Nihongi :—" to make cormorants dive into the water to catch fish." * Cormorant fishing is still to be seen on several of the Japanese rivers.

Hunting was indulged in, not only as a means of livelihood, but as a pastime. Several passages show the relish with which the Yamato gentry followed the boar and deer. A spice of humour attends the following adventure :—The Emperor Yuriaku having shot a boar " with a whizzing barb, the boar, furious, came towards him roaring. So the Heavenly Sovereign, alarmed at the roaring, climbed up to the top of an alder." † Observation of nature is instanced in the story of a dragonfly eating a horsefly which had bitten the arm of the royal hunter. The bow and arrow, spear, and even sword were used in hunting. Animals were also caught by traps and gins. It is interesting to note that the falcon was employed in hunting birds during the protohistoric era. The Nihongi says under the Emperor Nintoku :—" They can be tamed so as to be obedient to man. Moreover they are swift of flight and prey upon all kinds of birds . . . Lord Chyu accordingly fastened to its leg a soft leather strap and attached to its tail a small bell (*Suzu*) . . . At this time a large number of pheasants got up and the falcon was let loose and made to kill them." ‡

Proficiency in the industrial and pleasing arts was

* Aston's Translation. Vol. I. p. 341.

† Chamberlain's Kojiki. p. 318.

‡ Aston's Translation. Vol. I. p. 294.

Fig. 398.



PATTERN OF ANCIENT SILK FABRIC.
IMPERIAL HOUSEHOLD COLLECTION.

acquired under teachers from Korea and China. A number of arrivals are given in the classics which want of space excludes reference to. We have already noted the existence of various textiles, to which we may add woollen carpets, probably imported from Korea and China. There is an ancient loom in the Shoso-in at Nara and several examples of woven materials and brocades. Fig. 398 is a specimen belonging to the Imperial Household Department in the Tokyo Museum. Weavers and embroiderers seem to have hailed from both China and Korea. The art of paper-making is said to have come from Korea. It goes without saying that the early art of basketry was familiar to the Yamato.

According to the Kojiki, iron came from the "Heavenly metal mountains," when on the mythical scene appeared the smith Amatsu Mara, whom Hirata has identified with Ama-no-ma-hito-tsu-no-Mikoto, that is to say His Augustness Heavenly One Eye. There must surely be more than a coincidence in this likeness to the one-eyed Cyclopean smiths of Hesiod. We read of bars of iron being presented as tribute from Pekche (Korea), of an iron mountain in Korea, of tribute oftentimes sent from Korea, as bars, blocks, "axe iron," iron shields and targets. On the whole, we gather that iron came more or less in the form of ingots and was fashioned into weapons and implements in Japan. Copper was distinguished from bronze. The former was *Akagane* or red metal, a descriptive title, while the latter was *Karakane* or Kara metal, signifying its special manufacture in Korea or China. Perhaps there is here a hint that

the Yamato had passed out of the bronze phase before settling down in Japan. During the proto-historic era many copper and bronze images of Buddha were made in Japan, but there are few relics of bronze vessels and it is probable that the art of casting bronze was in a somewhat backward state. In A.D. 683 the Emperor Temmei decreed: "Henceforth copper coins must be used and not silver coins,"* but neither silver nor copper coins of that period are known. The first coin of Japan was made in the 5th month of the first year of Wado, A.D. 708, and bears the motto "Wa Do Kai Chin," the last character being an abbreviated form of "Ho," it should be read Wa-Do-Kai-Ho, or Japan Copper Commencing Treasure. This coin, however, was made in silver and was not followed by the bronze coin till three months later. These are both of very crude design and there is reason to suppose that the later Wado coins which are of much superior finish and bear a striking resemblance in the character "Kai" to that of the "Kaigen Tsuho" of China, were cast under the supervision of experts from that country.†

In the opinion of scholars, the arrival of the Korean teacher Wani (or Wang-in) which is said to have occurred in A.D. 385, did not take place till 120 years later, that is to say, in the beginning of the 5th century. He was preceded by an envoy called A-Chik-ki who had arrived with a present of horses for the Emperor Ojin and who gave some instruction to the Heir Apparent. Aston is of

* Aston's *Nihongi*. Vol. 2. p. 360.

† The writer's "Coins of Japan" P. 26.

opinion that "the Chinese language and character were not wholly unknown in Japan from a time which may be roughly put as coinciding with the Christian epoch. But this knowledge was confined to a few interpreters. There were no schools and no official records." * Wani is said to have been the first ancestor of the Fumi no Obito, or chiefs of writing, † from which one infers that his arrival was an event, and perhaps the first serious step in the acquisition of writing. The Kojiki is evidence that the early efforts of the Japanese in literature were mainly confined to the relation of incident, actual or imagined. There was little or no critical faculty. The influence of Chinese literary thought had not yet purged away the grossness so freely expressed in some of the songs. But now and then the chord of human longing is struck with a pathetic cadence which finds an echo in our highest range of emotion. Such is a death song of Yamato-dake :—

"How sweet ! Ah ! From the direction of home
Clouds are rising and coming ! " ‡

Again, how touching is the grief for a child that
"passed away :"—

"Like the flowing water
Of the river Asuka
Which surges as it flows,
Unceasingly
I long for him " §

* Aston's Nihongi. Vol. I. p. 262.

† Ibid. p. 263.

‡ Chamberlain's Kojiki. p. 220.

§ Aston's Nihongi. Vol. 2. p. 253.

In the Manyōshū Lays, too, the same note is occasionally sounded, but in these refined court songs the feelings are nearer the surface and are often the reflex of nature's moods. Thus :—

“ The clustering flowers
Of Fuji now be scattered,
But harebush blossoms
In all the hedges show,
Along the moorsides,
Along the mountain slopes
With *hi* trees shaggy
The cuckoo's note resoundeth,
My heart it yieldeth
To these gay influences.” *

Also :—

“ For heads of ladies,
For heads of courtly gentles,
To weave in garlands
O fair the cherry blooms are.” †

Here we have a glimpse of a social gathering on Mount Tsukuba :—

“ Above Mohakitsu,
'Neath eagle haunted Tsukuba,
Come sirs and dames,
In merry troops assembling,
In changing ditties
Their blithesomeness exchanging.” ‡

* “ Japanese Texts,” Dickins' Translation. p. 2.

† Ibid. p. 129.

‡ Ibid. 153.

Though, as Dickins has pointed out, these lays are peculiarly free from reference to fighting they often portray the sorrows of parting as the warrior or official leaves his home to obey the call of duty, and they occasionally dwell on the darker side of life, the evils of poverty, or the pathos of untimely death :—

“ The maid hath passed away,
Her little life,
Like morning dew is vanish'd,
Like morning mist is gone ! ” *

If, in the foregoing I have trespassed unduly upon the historic era, it has been with the intention, not only of marking the contrast with the almost totally illiterate condition of the Yamato two or three centuries previously, but to suggest that the culture of conduct and feeling is of much more rapid growth than that of thought. Neither in the two classics nor in the Manyōshū have we proof that the Yamato intellect soared beyond objective and emotional ideas. A remarkable conventionality pervades even the sentiment of this time and the didactic portions are clearly copied from Chinese literature.

Of speculative philosophy there is no trace. There are frequent references to astronomical phenomena, many of which show the influence of Chinese learning and date from the protohistoric period. It is practically certain that the quipu was used by the prehistoric Yamato. There are many survivals in Japan, especially in the Luchus. An old

* “ Japanese Texts,” Dickins' Translation. p. 45.

song placed by the Kojiki in the time of the Emperor Keiko and Yamato-dake, says:

“ Oh ! having put the days in a row, there are of nights nine nights, and of days ten days.” *

According to a work of the Wei period, “ the Wa (Yamato) are not acquainted with the New Year, or the four seasons, but reckon the year by the spring cultivation of the fields, and by the autumn ingathering of the crops ” ; but this cannot be accepted as literally correct. †

There is little to be said of the recreative art of the prehistoric era. Most examples which we have met may be traced to China, with exceptions such as have been previously noted. Music and dancing, primitive recreative arts, existed long before the protohistoric era. When Amaterasu hid in the Rock Cave of Heaven, the Heavenly Alarming Female, in scanty attire, danced on a resounding tub and did “ as if possessed by a deity.” The Kagura dance, with attendant music, has commemorated this in Shinto worship from the early days of the Yamato. The sounding tub here poses as the ancestor of the drum but I suspect that the Chinese funeral tub drum finds a conjectural origin in this myth. What other instruments were used during the prehistoric era no one knows. In the Nihongi there are many references to the *Koto* (a kind of horizontal lute) and some to the flute. It is highly probable that the fife and the fiddle, whose descent from the bow has brought it within the range of

* Chamberlain's Translation. p. 214.

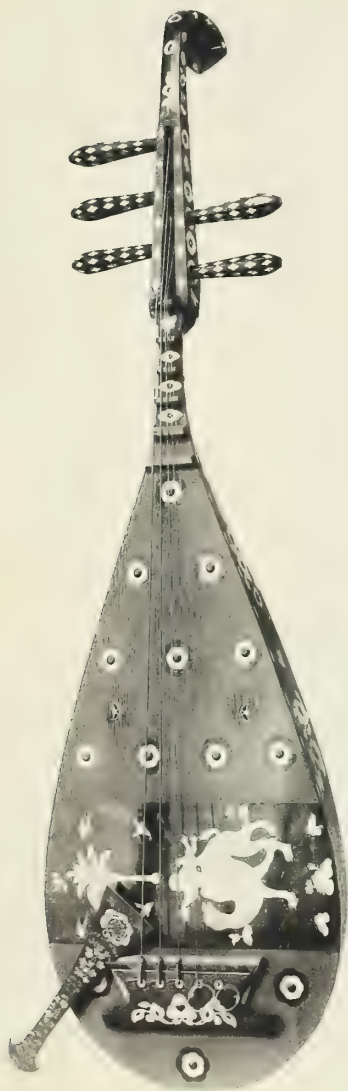
† Aston on “ Early Japanese History.” T. A. S. J. Vol. 16. p. 59.

Fig. 399.



Koto.
(Japanese Harp, Inlaid with Gold.)
IMPERIAL HOUSEHOLD COLLECTION.

Fig 400.



BIWA
IMPERIAL HOUSEHOLD COLLECTION.

Fig. 401.



GENKAN.
(Gekkin.)

IMPERIAL HOUSEHOLD COLLECTION.

Fig. 402.

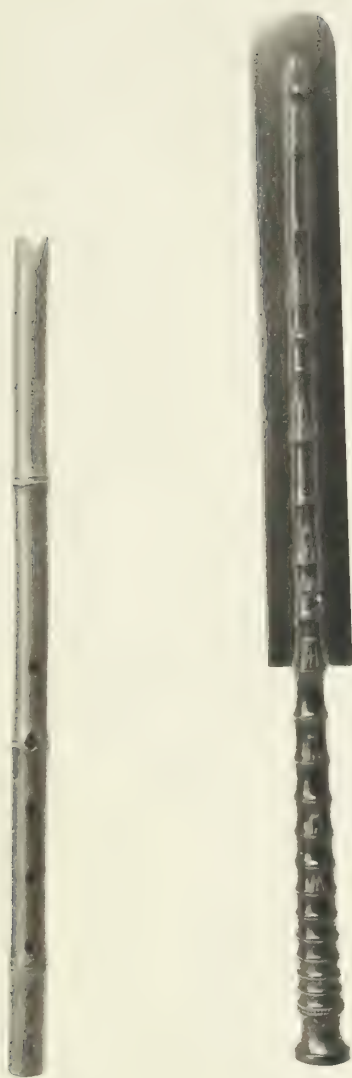


KUGO.

(Harp.)

IMPERIAL HOUSEHOLD COLLECTION.

Fig. 403.



FLUTES.

Shaku Hachi and Jimbi.

IMPERIAL HOUSEHOLD COLLECTION.

primitive culture, played their parts in the prehistoric orchestra. During the protohistoric era several forms of *Koto*, one of which is given in Fig. 399, the *Biwa* and *Genkan* (lutes played with the plectrum) Figs. 400 and 401, the *Kugo* or harp, Fig. 402, derived immediately from China (but which probably travelled from Persia and even from Chaldea) and various kinds of flute, Fig. 403, yielded their strains for the delectation of select circles. A teacher of music is said to have come from, or through, Korea. The dances were mostly pantomimic and continue so to this day. Among those of the protohistoric era the *No* and *Kagura* have survived and still delight the lover of the classical drama. Among amusements we read of wrestling, cockfighting (with metal spurs), picnics, backgammon, gambling and football. The last, called *Dakui*, is sometimes described as a kind of polo, a Turanian game, but the reference (p. 594) to the shoe falling off suggests propulsion by the foot.

With regard to family life the marriage ceremony might be thought to occupy a prominent place, but no definite description of such is found in the classics. Nor is there much ceremony at the present time. A go-between is sometimes mentioned, not only for procuring a wife but also a concubine. Presents (*Tsuma-doi*, wife-visit) were given to the solicited bride from the would-be bride-groom. A present also appears to have been sometimes given after the consent of the parents had been obtained and in at least one instance food is said to have been presented to the groom from the bride. According to Motoori it was a custom for a bride or her

parents to give a *Koto* to the groom. This was returned when a rupture occurred, but on one occasion the husband took the *Koto* with him. The presentation of a *Koto* was in all probability a Chinese custom and must have been confined to the higher classes.

There is some indication that a marriage ceremony was anciently performed. Before the male and female Creative Deities, Izanagi and Izanami, were united, "they saw to the erection of a Heavenly August Pillar, they saw to the erection of a Hall of eight fathoms." * Around this Pillar, which had the phallic title of "Male Pillar," they promenaded in opposite directions, like the old dance around the Maypole. On meeting at the first round Izanagi was disturbed at being addressed by his spouse and the process had to be repeated in order to enable him to say the first word. This circumambulation is a well known feature of primitive ceremonial. It played a part in the Vedic marriage :—" the husband led his bride three times round the nuptial fire, whence the Sanskrit name for wedding, *Pari-naya*, 'leading around'—and the newly kindled domestic fire was to accompany the couple throughout life." † Among the Gonds and Korkus the ceremony includes "eating together, tying the garments together, dancing together round a pole, being half drowned by a douche of water, and the interchange of rings." ‡ Pouring water over the bride is mentioned in the *Nihongi* in

* Chamberlain's *Kojiki*. p. 19.

† Macdonnell's *Sanskrit Literature*. p. 254.

‡ H. Low, cited by Vestermarck "History of Human Marriage." p. 420.

one of the edicts of the Emperor Kotoku, where it is classed as a reprehensible custom. It, however, exists in various parts of Japan. It formerly prevailed in the province of Nagato.* It is extant in the provinces of Izumo,† in Echizen,‡ in Shinano and in Uzen,§ under the name of *Mizu Iwai* or water purification. The phallic element embodied in the "Male Pillar" is preserved in a peasant custom, now restricted to a few provinces, such as Ugo,|| where the bride is struck with a *Kezurikake*, a stick, whittled much like the *Inao* of the Ainu, but the phallic significance of which is recognised. In Echigo, the brides of the previous year are struck with the *Kezurikake* on the 15th day of the new year.

The lover seems to have been permitted to visit his future wife in a quasi-surreptitious manner before she was committed to his keeping. But the *Tsuma*, or wife, sometimes remained with her parents and frequently had an establishment apart from her husband. Men of rank and position had several wives, as noted by contemporary Chinese travellers and often mentioned in the *Kojiki*, *Nihongi* and *Manyōshū*. It is not easy to decide how far the polygamy of ancient Japan distinguished between wife and concubine. The evidence of a matriarchate does not necessarily favour the view that one wife was recognised as the chief, though this would likely be the case where one establishment included all.

* The Late Baron Kanda, T. J. Z. No. 4.

† M. Akiyama, Ibid. No. 16.

‡ Prof. Tsuboi Ibid. No. 18.

§ Y. Hashiba, Ibid. Nos. 9 and 10.

|| S. Yamanaka, Ibid. No. 15.

But there could be little question of supremacy where each wife had her own establishment, or shared it with her parents. Here, perhaps, we may find the key to the institution of the matriarchate in Japan. Each wife would, naturally, have a separate provision arranged through a middle-man, or otherwise, with her guardians, which she could hold in her own right. In lower circumstances, or where it was otherwise inexpedient to have separate quarters for all the wives, the conditions would soon determine the status of each. This would not only depend upon the personal qualities and feelings of those concerned, but largely upon the social standing of each wife, the arrangement made with her guardians and the capability of the latter to see its conditions fulfilled.

K: Asakawa, in an admirable and generally unprejudiced statement regarding the ancient Japanese, is unwilling to admit that the marriage of brother and sister was customary with the Yamato. He says:—"The few cases recorded in the *Kojiki* cannot be used as the basis of an argument of this sort, as the time is too remote and too fabulous to be seriously considered. On the other hand the *Nihongi* states a case in 433 (A.D.) where the marriage of a brother and sister of the same mother is held to be an outrage and a crime." * The latter statement is true, but a sharp distinction must be drawn, and is drawn in most of the many instances known in other lands, between the marriage of brothers and sisters of full blood, i.e. by the same parents on both sides,

* The Early Institutional Life of Japan. p. 53.

and those of half blood, usually by the same father and a different mother. Prof. Westermarck and others have dwelt on the natural repugnance to sexual co-habitation on the part of opposite sexes, brought up in close intimacy under one roof. But where each wife had her separate establishment and control over her family, especially where, as appears to have often been the case, these establishments were at a distance from, or out of cognisance of, each other, this repugnance was reduced to a minimum. It might often have happened that the half brothers and sisters were entire strangers. The property settled on, or otherwise arranged for the wife and her offspring would, by such a treaty, be kept in the family, as has been suggested in regard to similar customs in other lands. The higher the station the greater the interests involved, and the greater temptation to concentrate these in the family. Hence we have Prof. Westermarck pointing out that historical instances of this sort are mostly found among crowned heads or those in succession or in close proximity to the throne. This was also the case in Japan but the practice may have been sometimes followed by the nobility. There is no need to detail the instances presented in history. Only one case of regular marriage between a royal brother and sister of full blood has been recorded * and has been viewed with suspicion, inasmuch as it was illegal and detestable in more ancient times. The term *Mama-imo* was specifically applied to the younger sister

* Zoku Nihongi (Continuation of the Nihongi). This is supposed to have occurred in the latter part of the 8th century.

of a different mother, but *Imo*, meaning both younger sister and wife, was generally used to express this, as well as the closer relation. When Prince Karu, the Heir Apparent, in A.D. 435, (according to the reckoning of the Nihongi), transgressed in this respect, he was refused the succession and afterwards died by his own hand. His conduct is described in the Nihongi as "a barbarous outrage in debauching a woman. The nation censured him, and the ministers would not follow him, but all, without exception, gave their allegiance to the Imperial Prince Anaho." *

Promiscuous union was presumably a feature of the proto-human phase. It is known among some savage tribes at the present day. Prof. Letourneau gives the authority of Strabo to the effect that "the Ancient Irish married without distinction, their mothers and sisters," of Tertullian that the Parthians and Persians married their own mothers, and of Priscus that these marriages were known among the Tartars and Scythians. † Speaking generally, however, incestuous unions do not seem to be a feature of neolithic culture, which often sets up barriers against the marriage of blood relations and sometimes against endogamy. The marriage of brothers and sisters is usually, perhaps, a partial revival rather than a survival of incestuous intercourse. Here, the natural repugnance ‡ to social co-habitation with familiar blood relations is off-set by the advantages of preserving property intact for

* Aston's Translation Vol. I. p. 328.

† "The Evolution of Marriage" p. 64.

‡ The writer has met with similar repugnance in other mammals and even in birds. Thus it is possibly a survival by natural selection.

the welfare of the family and presupposes a stage where the possession of property is recognised and permitted. Osiris and Isis in Egypt, like Izanagi and Izanami in Japan, were said to be brother and sister. Marriage with sisters was the custom in Egypt,* where the matriarchate was strongly in evidence. Westermarck has brought together a number of observations and historical references with regard to the custom. According to the authorities whom he cites, unions with sisters or half sisters are, or were, customary in the royal families of Persia, Baghirmi, Siam, Burmah, Ceylon, and Polynesia. "In the Sandwich Islands, brothers and sisters of the reigning family intermarried, but this incestuous intercourse was in other cases contrary to the customs, habits and feelings of the people." Among the Kamchadales, the Veddahs of Ceylon, the Gypsies, the Karens and the Wa-taita, such unions are permissible but not in all cases approved of. In the Rig Veda there seems to have been a conflict of opinion as to the propriety of such marriages. As instances of marriage with a half sister Westermarck mentions Abraham, the Phœnicians of Tyre, the Assyrians, the Athenians, the Ostiaks and the South Slavonian Mohamedans.† However repellent such a practice may be to our feelings, it is well to bear in mind that the familiar relations established from infancy are

* Fraser's "Adonis, Attis, Osiris." p. 321. Even the Ptolemies yielded to this custom.

† "The History of Human Marriage." pp. 291-5. When interrogated by Abimelech Abraham said "And yet indeed she is my sister; she is the daughter of my father, *but not the daughter of my mother* and she became my wife." (Genesis XX and 12.)

sexually deterrent, though not absolutely so. Such unions assume a more conventionally abhorrent aspect when the parties to the contract are strangers or mere acquaintances and are connected with a common parent on one side only. That considerations of policy might constitute a cogent reason for such marriages was a view sanctioned by the Church in Europe less than five centuries ago. Even now they generally outweigh scruples against consanguineous marriage, as in the case of cousins. Marriage of cousins is recorded in the *Kojiki* and *Nihongi* and one or two instances of male alliances with aunts and nieces are given.

In speaking of the nuptial hut I suggested that it might have been a means of avoiding ritual impurity. It is possible, however, that it was the survival of a once general custom of keeping each wife apart. The parturition hut has also been alluded to. We learn that, in royal circles, wet nurses, bathing women, boiled rice chewers,* and washermomen were employed in the nursery.

Some prominence is given to bathing as a means of ritual purification, but also for personal cleanliness. Several hot springs (which abound in Japan) are mentioned, the curative properties of which seem to have been recognised in ancient times.

Women probably enjoyed more freedom than in later days, but whether their status was superior is open to question. There are distinct signs of a

* Rice, which is mainly carbohydrate, is transformed into grape sugar, by the action of the saliva. This practice is still common in China and used to be so in Japan, where it is now rarely met with. It was employed only till dentition was complete.

matriarchate. Uterine filiation is apparent in tracing the names of children. Prof. Miyake says that the character used phonetically in the Kojiki for *Oya*, signifies "real mother," though the meaning of this Word is parent or ancestor. His investigation revealed the fact that of the names belonging to personages of ancient history, the original one, as distinguished from others afterwards bestowed for special reasons, was usually that of the mother, or of her family place.* I find that the interesting custom known in Europe as the "Couvade," exists to a modified degree in Japan. In various fishing communities the wife usually goes to the home of her parents to be confined, but whether or no, the husband is not permitted to be present at the birth of the child but is obliged by "ancient custom" to keep indoors for one week. This period is called "Nana-ya" or seven nights, which clearly intimates a fixed period for this compulsory house keeping. Among the Ainu, as Batchelor, I think, was the first to observe, the Couvade is an established custom. The father stays at home for one week and occasionally takes to his bed, or rests like an invalid. Sometimes he spends this interval in a neighbour's house but the idea of resting is prominent. Batchelor tells us that "this performance is called *Yainnunuke*, and that it signifies simply 'comforting' or 'blessing,' 'or resting oneself quietly.' On the morning of the seventh day he is said to *Shotki chupu*, i.e. 'fold up his bed.' " On this day he returns to his own hut. But even here he must

* T. J. Z. No. 44.

abide quietly at home for another six days." * It is evident that in both these cases we have substantially the same custom, which may be taken as a vestige of sympathetic magic, connecting the present with the days of the matriarchate. In the Japanese form of this custom, the return of the wife to her parents' house is decidedly reminiscent of the separate establishment, if not of the matriarchate. Another custom, in some localities, which possibly dates from the matriarchate, is the offering by the husband to a shrine at the beginning of the New Year, of rice which has been cooked by himself, but this may be connected with ritual purity. In rural districts a small piece of land is occasionally set apart for inheritance in the female line. I know of only one case, but have been told that this custom is otherwise not unknown.

A word must be said about the *Be*, a remarkable organization of purpose and, speaking generally, of labour, which prevailed in Japan from prehistoric times. *Be*, is the euphonic pronunciation of a Yamato word, *He*, meaning to preside over, † which had acquired the former sound before being preserved in writing. *He* had several other meanings, but the above seems appropriate. The *Be* was a corporated association or department with a distinctly hereditary character, the rationale of which was probably to secure efficiency by specialization under the control of a chief and his staff. The rank and file may have been serfs or slaves who probably worked in a

* "The Ainu and their Folk Lore." p. 236.

† Wakun Shiori.

stereotyped groove for generations. Potters, stone coffin makers, shield, arrow and sword makers, jewel makers, mirror makers, saddlers, painters, weavers, brocade makers, seamstresses, local recorders, scribes, farmers, fleshers, horse keepers, bird feeders, the *Mibu* (who provided wet nurses for Imperial Princes), palace attendants, commemorators of names, and *Katari* (court reciters), were organised into *Be* under special chiefs who were probably responsible for their efficient services. It would appear, however, that "Chief of *Be*" was sometimes a title bestowed for exceptional service and that it was occasionally posthumous. The *Katari Be* probably memorized traditions and genealogies and were the transmitters of what little knowledge remained of the past. Aston says:—"Hirata, in his *Koshi-cho*, states, on what authority does not appear, that the *Katari Be* came forward and recited 'ancient words' before the Emperor at the festival of Ohonihe, when he inaugurated his reign by sacrifices to the Gods. It is not probable that their services were confined to this occasion." The religious *Be* were for general or special purposes. For instance there was a *Be* of Sun-worshippers, while the *Imi-be*, a body of "abstainers," were obliged to avoid ritual contamination or impurity. They carried out a technique of spiritual asepsis, both in their persons and through the utensils which they employed, thereby foreshadowing the technique of the modern surgeon against infection of his patient. Thus were they prepared to perform sacred functions.*

* This idea of impurity in primitive culture was probably initiated by infection.

The following passage from the Later Han Records gives an interesting glimpse by a contemporary traveller of the manner in which the Yamato lamented the deceased:—"Mourning lasts for some ten days only, during which time the members of the family weep and lament, whilst their friends come singing, dancing and making music. They practice divination by burning bones and by that means ascertain good and bad luck, and whether or not to undertake journeys and voyages. They appoint a man whom they style the 'mourning-keeper.' He is not allowed to comb his hair, to wash, to eat meat, or to approach women. When they are fortunate they make him valuable presents; but if they fall ill, or meet with disaster, they set it down to the mourning-keeper's failure to observe his vows, and together they put him to death." *

Slavery was practised by the Yamato, and the farmers probably occupied the position of serfs. It may be that slaves were exported to China,† for there was little else that prehistoric Japan could furnish in exchange for commodities from abroad. Perhaps, however, rice was shipped to Korea or China and possibly the produce of the sea. Both are extensively exported at the present time. According to the Wei Records, there were "markets in

* Aston on "Early Japanese History" T. A. S. J. Vol. 16. p. 54. Divination by roasting the shoulder blade of a deer, mentioned in the Kojiki, Nihongi and Man-yōshū, was to some extent supplanted in later times by the Chinese plan of heating the shell of a tortoise. But in all probability the method of reading the future by the cracks thus formed was closely similar.

† A "tribute" of slaves is mentioned in the Records of Wei. Ibid. p. 58.

each province where they exchange their superfluous produce for articles of which they are in want.”*

The relations between the people and their chiefs or kings, and those of the Yamato to the primitive population are of too complicated and obscure a nature to come within this compass with any prospect of successful elucidation. Some features of the latter will be presented in order to reach some idea as to the antiquity of the Yamato incursion and inferentially, that of the primitive culture. As to the former, one may remark that the Yamato tribe seems from its earliest approach to have been divided into clans whose interests frequently clashed, so that its members were obliged to follow their chiefs to war on each other as well as against the primitive natives. These were also divided into clans, and perhaps tribes of different racial origin, though the evidence for this is not at all conclusive. Doubtless, alliances were made and broken as occasion prompted, and it may be taken that the frontier for over a thousand years was a seething hot-bed of intrigue, treachery and perpetual strife. South of the Ise-Ōmi line (Map, Appendix A), the country was held in subjection from the commencement of the Christian era, with the exception perhaps of southern Kyushu, where an alien population of Malayan origin is believed to have settled. These Kumaso† or Hayato, however, gradually assimilated the general Yamato culture. During the incubation period adventurers continued to arrive from the Korean peninsula and probably slaves were imported

* Op. cit. T. A. S. J. Vol. 16, p. 58.

† Possibly Ainu.

by raid or purchase from the mainland, to cultivate the fields; the captured Yezo were far from efficient agriculturists and not easy to keep in restraint. Northwestern Kyushu, anciently known as Tsukushi, was the key to the continental door. The Yamato, though probably expert smiths, derived their supply of iron mainly from Korea and the importance of keeping open the communication with the continent was recognised in early times.

The four centres specifically referred to in the Kojiki and Nihongi are Tsukushi, Izumo, Yamato and the region now known as the Kwanto. The mythology is chiefly concerned with the two former and not at all with the Kwanto. It points to a division of authority, perhaps to distinct centres of government, in the two former regions. After, it may be, a prolonged struggle, Tsukushi appears to have conquered its rival, or a coalition resulted which ultimately led to an extension through the alluvial plains of Bitchu to Bizen, Harima and the Yamato region. With respect to the movement on Yamato itself, under the personage known in recent times as the Emperor Jimmu, no more than a surmise can be formed. Whether this enterprise was carried out under the "Divine Yamato Ihare* Prince," or whether such a title represents more than one leader, during perhaps, more than one generation, there is little doubt that the expedition was directed against the primitive Ainu. It is also far from improbable that by this time the strong arm of some powerful personality had established at least nominal control over

* Ihare, a place in Yamato. Aston.

the turbulent clans and enlisted them into a more or less coherent hegemony. In the early centuries of the present era, Chinese travellers noted the division of the land into "over 100 provinces" whose rulers were called kings, but who seem to have been subject to the "sovereign of great Wa," in Yamato. Towards the end of the 7th Century the Japanese adopted the designation "Nippon" in preference to "Wa," on account of the slight implied in the original writing of the character "Wa," * (倭) though the sound wa was represented on the first coins of the country (as 和, which means "peace"). The sovereignty was not confined to the male sex. There are grounds for the belief that the Mikado, in addition to important sacerdotal functions, exercised real power till the rise of the Soga clan in the 6th century. From this time till the fall of the Tokugawa Shogunate in 1868, the government of the country was practically in the hands of powerful clans, or chiefs of factions, who administered it under the nominal control of the sovereign. The sacerdotal office of the kingship, however, though delegated in minor details to representatives, has been preserved, like the unbroken line of succession, from prehistoric times.

According to the Nihongi there was no advance to the east for six centuries after the conquest of Yamato, the interval being occupied with domestic affairs, regulation of the ancestral cult and "subduing and pacifying the savage deities and extirpating the unsubmissive people." My belief is that somewhere about the Ise-Ōmi line the Yamato were held in check by the primitive people for many centuries,

that armed outposts or bands of adventurers gradually advanced along the alluvial plains of Mino, Owari, Mikawa, Tōtomi and Suruga, but that the mountains of this region were held by the Ainu, whose sphere of influence also comprised the country to the east and north of the Izu peninsula. It may be that the Yamato, having command of the sea, invaded the coast of Echū and perhaps of Echigo about the same time that they swept into the great plains of the Kwanto and, moving up the valleys of Kotsuke and Shinano, turned the flank of the primitive position and compelled a retreat to the farther east and north.* I am of opinion that such movements did not assume important dimensions till the beginning of the Christian era. Previous to this the Yamato had acquired the land to the south of the Ise-Ōmi line and were engaged in extending their agricultural operations throughout the occupied territory, augmenting their population and gathering strength for the advance to the east and north.

According to the ancient traditions, the movement into the Kwanto was undertaken by a son of the Emperor Keiko, namely, Wo-usu, better known as Yamatodake, or Yamato Bravest. The Emperor is supposed to make a speech, the real interest of which is derived from its expression of opinions concerning the Yezo which were current about the time when the *Kojiki* was written. "The Yemishi (Ainu) have rebelled to a man and frequently carry off the people. Whom shall we send to still this disturbance? . . . We hear that the eastern savages are of a violent disposition

* See Map, Appendix A.

and are much given to oppression: their hamlets have no chiefs, their villages no leaders, each is greedy of territory and they plunder one another. Moreover, there are in the mountains malignant deities, on the moors there are malicious demons, who beset the highways and bar the roads causing men much annoyance. *Amongst these eastern savages the Yemishi are the most powerful*: their men and women live together promiscuously, there is no distinction of father and child. In winter they dwell in holes, in the summer they live in nests. Their clothing consists of furs and they drink blood. Brothers are suspicious of one another. In ascending mountains they are like flying birds: in going through the grass they are like fleet quadrupeds. When they receive a favour they forget it, but if an injury is done they never fail to revenge it. Therefore they keep arrows in their top-knots and carry swords in their clothing. Sometimes they draw together their fellows and make inroads on the frontier. At other times they take the opportunity of harvest to plunder the people. If attacked they conceal themselves in the herbage: if pursued they flee to the mountains. Therefore ever since antiquity they have not been steeped in the kingly civilizing influences." * There is no evidence that

* This speech has been condemned by Motoori and European scholars. Aston describes it as a "cento of reminiscences of Chinese literature." Yet there are indications of some familiarity with the habits of the Yezo or Ainu. At the bear festival they drink blood. In former times they probably lived in pit dwellings during winter and if we may judge from their elevated store houses, it is not unlikely that they used elevated huts in summer. The phrase which I have italicised has been held to prove that there were other savages than the Yemishi, but the speech is not sufficiently authentic to warrant any definite conclusion.

this region had been brought within the Yamato sphere of influence. The speech quoted on page 258 of this work, is arbitrarily dated by the Nihongi 13 years before that given above, but there is no sign that anything had been accomplished in the interval. The exploits of Yamato-dake in Sagami, Hitachi and Shinano are especially interesting on account of the close incidence of Yamato and primitive sites in these provinces. They are probably reminiscent of important movements in the Kwanto, in which region legend was linked to the ancient vestiges. The mastery of the Kwanto sealed the doom of the Yemishi or Yezo. At the beginning of the Christian era this extensive and fertile area might have sustained the whole Yamato population. The density of the primitive sites shows how important was this region. No other sea-girt plain approached it in area; from this position onward the mountains offered less effective protection against the Yamato advance.

The chart which accompanies the Map (Appendix A) shows approximately the incidence of the primitive and Yamato sites in three component areas, which we may call A (west) B (central) and C (north). The first area (A) lies west of Echizen, Mino and Owari, from the Ise-Ōmi line to the extremity of Kyushu. The Second (B) extends from that line to the 38th parallel of north latitude and the third (C) from thence to the extreme north of Yezo. The areas thus marked out are not quite equal, but sufficiently so for the rough comparison which is here attempted. With respect to the numbers of primitive and Yamato

sites thus far discovered it is certain that the returns are far from complete. In some regions archæological research has been more thorough than in others. There is much unexplored territory in Yezo ; from my limited observations in that island, the primitive sites seem to be more numerous than the returns yet indicate. On the whole, however, it is probable that where archæological investigation has extended the relative numbers of primitive and Yamato sites will not vary to any very serious extent. Of course the mere co-existence of sites gives no information as to the time relation of these cultures. Our knowledge of culture sequence assures us that the dolmens with their iron weapons did not precede the shellmounds with their implements of stone. We gather that these cultures did not co-exist in the same localities because the shellmounds betray such contact in the most insignificant degree. From the very exceptional cases where traces of Yamato pottery have been found in the primitive sites and from the existence of the Intermediate pottery, we assume a limited contact between the Yamato and the subjugated Yezo, a relation on the part of the latter of dependence and sometimes of slavery. It is recorded in the Nihongi that in a battle with the Yezo "the enemy, finding that they were being beaten, put to death their own wives and children."* The inference is obvious.

Taking the first area (A), to the west of the Ise-Ōmi line, we recall the statement previously made, that here the primitive sites number only about

* Aston's Translation, Vol. 2. p 264.

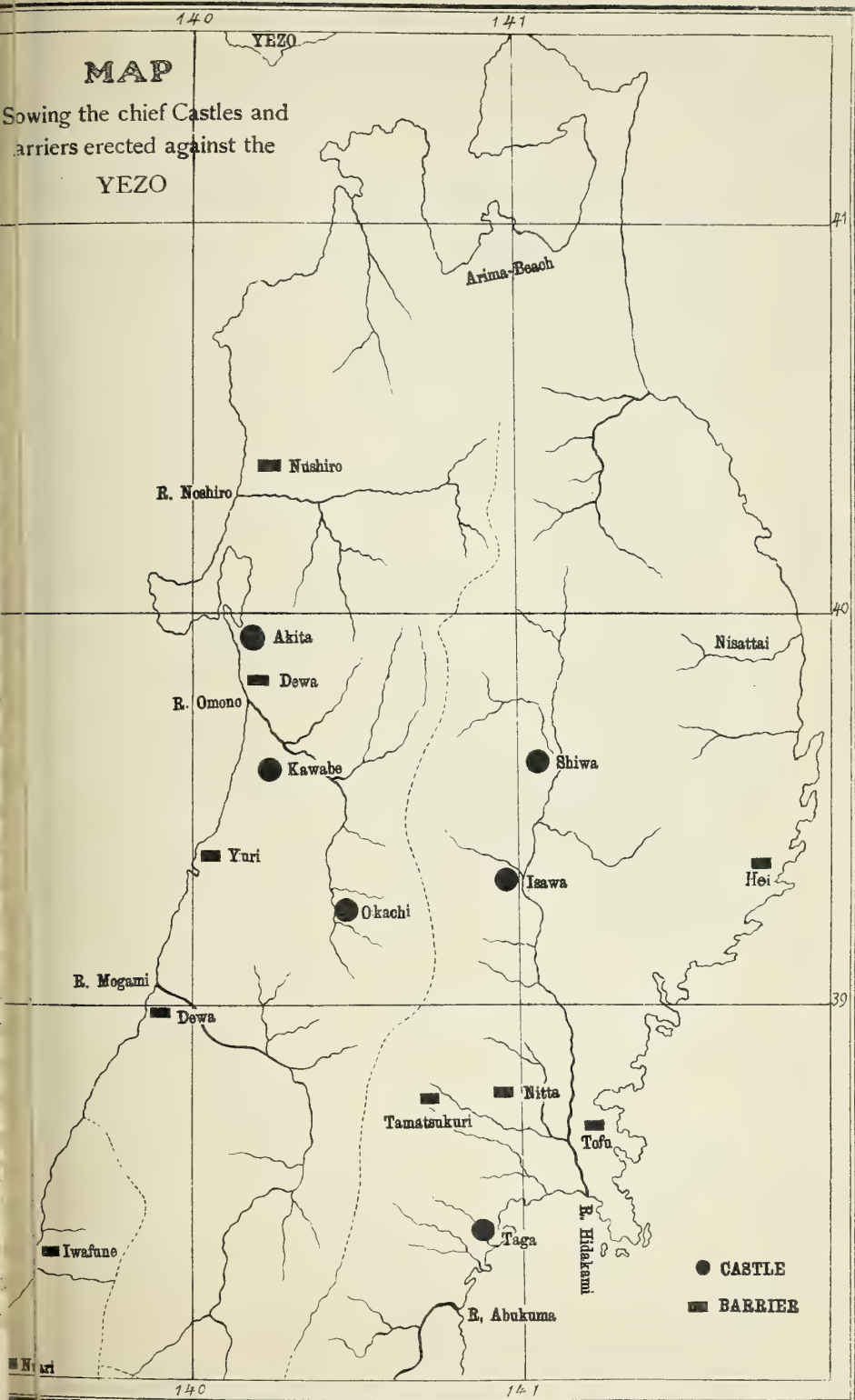
4 per 100 *Ri*, whereas from thence to the north of the main island (Honshu), some 24 per 100 *Ri* have been thus far discovered. It is not to be imagined that the eminently suitable region, A, was not at one time a favourite habitat of the primitive culture; we are forced then to the conclusion that this culture has either not had sufficient time to reach a corresponding concentration in section A, or it has been displaced by an agricultural community for a sufficiently long time to cause dispersal of its characteristic shell-mounds. In either case, and making allowance for varying investigation it is apparent that the primitive culture had ceased for a much longer period in section A than in those to the east and north. The Yamato sites (See Chart) are here twice as numerous as those of the stone phase, which we may interpret as indicating a long occupation of this area. The antiquity of the primitive culture in section A is somewhat emphasized by the general crudeness of its pottery, upon which most in the Kwanto and to a still more notable degree that of north Japan, show a very decided advance.

The mythological and legendary lore of the early Yamato shares with all others certain traits, some resemblance in dramatic motive, in actual incident and occasionally, perhaps, in names. But the setting is local and the colouring is Japanese. This betokens a long period of time. The enormous number of dolmens, too, erected only for exalted personages, needed a considerable lapse of time for their construction, while the signs of change in matters so conservative as the type of tomb and

Fig. 404.

MAP

Sowing the chief Castles and
barriers erected against the
YEZO



the manner of funeral offerings deserve some consideration. Dare we guess at the duration of this antiquity? I have already expressed the opinion that the occupation of the Kwantō took place about the beginning of the present era. This will presently be seen to harmonize with the incidence of sites in sections B and C. If this be so, we cannot be far wrong in allowing five centuries B.C. for the displacement of the primitive culture and the advance of the Yamato beyond the Ise-Ōmi line or its neighbourhood.

Turning now to the incidence of sites in section B, I have to explain my selection of the 38th parallel as a boundary. The area is rather less than in the preceding section but certain considerations show that the border of Yezo land was near this parallel about the 7th and 8th centuries. An inscription on stone at the castle of Taga near Sendai, (Map, Fig. 404) dating from A.D. 762, was translated by Aston in 1879.* The inscription states that the castle was 120 *Ri* from the border of Yezo, and 1500 *Ri* from the capital. The name "Yezo," which has long been applied to the Hokkaido, did not refer to this island nor to any special place. The border of Yezo was the barbarian frontier, wherever the area of Yamato influence ended. Doubtless, from time to time some kind of a peace was patched up, the frontier was "delimited" and changed on various pretexts as the speeches from the Nihongi show. As the Yamato pressure increased, the primitive culture concentrated, and the difficulty of finding supplies, combined with

* T. A. S. J. Vol. VIII. pt. I.

resentment against acts of oppression culminated in outbursts which furnished a pretext for further repression and extension of territory. Aston explains that the *Ri* in question were not the same as the present *Ri*, but were one-sixth of that length, so that the Yezo border must have been about 50 miles from the castle of Taga, that is to say near the 39th parallel, in the year 762. Although this stone clearly states the distance to the Yezo border, the castle was erected in the 6th year of Yoro (722), and was sacked and destroyed by the Yezo in the 11th year of Hoki (780). North of Taga, on the same (eastern) coast the castle of Tōfu was erected in the 4th year of Tempei Hoji (760). In the latter half of the same century the castles of Tamatsukuri, Ichi, Isawa and Okachi, besides several barriers, such as Ojika and Nitta were constructed, inland and on this coast, between the 38th and 39th parallels. On the west coast the barriers of Nuttari, (647) Iwafumi, (648) Dewa, and perhaps Tsukisara (658) and others were erected within the same degree of latitude. There can be no question that these fortifications were intended to hold in check the primitive inhabitants. The Nihongi says :—" the barrier of Iwafune was put to rights as a precaution against the Yemishi. Eventually subjects from the provinces of Koshi and Shinano were selected, and a barrier settlement for the first time established."* In 658 an expedition of 180 ships proceeded against Yemishi or Yezo as far as " Aita " (Akita), from which we infer that a land route was impracticable. The Yezo submitted,

* Aston's Translation. Vol. 2. 231.

local governors were appointed in two districts of Mutsu, and the Yemishi of "Watari" island invited to a great feast. It is not certain whether Watari island was the present Hokkaido (Yezo) or the island of Sado. Watari Shima means the "crossing over island" and the name Watari has been applied to part of the province of Oshima (Yezo) which was probably supposed to be an island. The naval expedition could have had no difficulty in approaching the inhabitants of Yezo, but there are reasons for doubting that Watari island meant the Yezo coast.* During the reign of the Emperor Kwammu (782-806), Tamura Maro led a strong expedition against the Yezo who were slaughtered in great numbers, and the castles of Isawa and Shiwa were constructed. The barrier of Hei was erected at a later date, between A.D. 1053 and 1065. These, however, failed to contain the primitive people, who repeatedly broke forth, as instanced above. That the Yezo were foemen worthy of the Japanese steel is proved by the difficulty in subduing them, notwithstanding the superior armament and discipline of the invaders. There are several instances of Yamato defeat in the field. An ancient song makes rather a pathetic reference to their courage. The occasion, a legendary one, was the murder of the *Tsuchigumo* while partaking of the hospitality of the Yamato chiefs.

* According to the *Rekishi Chimei Jiten* (Dictionary of Japanese History and Geography), the Arima beach, where the feast occurred, might have been in the island of Sado. The Chinese writing for "Arima" differs from "Oto" only in one stroke of one character, so that the mistake might have easily occurred.

“ Though folk say
That one Yemishi
Is a match for over one hundred men
They do not so much as resist.” *

The *Tsuchigumo* are here regarded as barbarians, presumably of alien race to the Yamato. They appear to have sometimes been organized under the leadership of disaffected Yamato soldiers. Yoritomo, in 1192, held the important office of Sei-i Dai Shōgun (Subjugating-Barbarian Great General) the duties of which had become less onerous but which had called forth the highest qualities of courage and endurance for many centuries. If modern Japan has physically inherited some of the intrepid character of the Yezo, or Ainu, she has also derived, from over a millenium of arduous warfare, some of the hardihood which has led her to victory.

Notwithstanding that during the “dark ages” of Japan the relations with the primitive inhabitants partook of the odious character of which so many examples are forthcoming in other lands, it is pleasant to read that in early historical times humane sentiments tempered the conduct of the conquerors. This was due, perhaps, to the spread of Buddhism which had made a serious impression on the ruling classes. Efforts were made to encourage amicable relations; caps of honour and other tokens of official rank were bestowed upon those who proved loyal. Inducements were held out to embrace the Yamato rule. The farmers were taxed in rice for the support

* Aston's Translation. Vol. I. p. 124.

of captured Yezo. Those who refused to become "tame" migrated to the island which now retains the name, "Yezo." Some admixture took place with the Yamato stock in the north as well as in pre-historic times, but some Ainu retained their distinctive characters in the north of the main island till within the last century or two. "The late Mr. Hirosawa said that Ainu were living in Sotogahara (province of Mutsu) till the period of Horeki," (1751-64).*

The facts mentioned above are sufficient to show that at the beginning of the 8th century the frontier of the Yezo was not far from the 38th degree of north latitude. The most northerly dolmen given in the list of 1902 is near this line in the province of Uzen. "Stone chambers" are reported near Morioka. Dolmen burial went out of fashion in the year 667, according to the Nihongi, which says:—"The prince Imperial addressed the ministers saying:—'In obedience to the commands of the Empress Dowager and the Empress, I have compassion on the myriad people, and have therefore not undertaken the work of constructing a stone sarcophagus. I trust that this may be taken as a mirror and a lesson for all time.' "† The stone chambered mounds in the province of Rikuchu may have been erected about the time of the expedition under Tamura Maro. They were probably made at least a century after their supposed cessation. Possibly some exception was made in

* S. Sato in T. J. Z. No. 74.

† Aston's Translation, Vol. 2. p. 285. Aston remarks, and the same view is shared by most, that a stone chamber was probably intended.

the case of military commanders, for the Naidaijin Fujiwara (A.D. 669) requested simple burial arrangements on the ground that he did not serve his country in war. Caves and mounds extend throughout the north, and must have long outlasted the 7th century. The reader will observe that the number of Yamato tombs in the middle section, B, is about the same as in the western division, A, but that the primitive sites show an enormous increase. Both are thickly congregated in the Kwanto; in Shimotsuke and Kotsuke are many double mounds, indicating a centre of great, if not independent authority. I may venture to suggest that the Konu of the Chinese travellers occupied the position of the modern Kotsuke. The present provinces of Kotsuke and Shimotsuke formerly constituted one province named Yashu. This, however, is a word of Chinese derivation and must have been applied after the introduction of writing, say about the beginning of the 5th century A.D. The name Konu probably comes from *Ko*, "superior" and *Nu*, a "plain" or "moor," a Yamato word, now pronounced *No*. Kotsuke means the "high plain" and Shimotsuke the "low plain." Konu might have been originally an advanced post on the frontier. Commanding the approaches to the Kwanto plains from the north, it possessed certain advantages as a centre of independent control. The wrangling of the king of Konu with the queen of Yamato might thus be accounted for. The fact that the "land of Konu" had acquired such importance before the middle of the 3rd century A.D. is favourable to the proposition that the

advance into the Kwantō took place about the beginning of the Christian era.

If it were possible to ascertain the approximate ages of the Yamato dolmens by reference to their construction or contents, the duration of this culture in Japan might be more definitely determined. There are, however, no reliable data upon which to base an estimate. The tombs themselves tell nothing except that one TYPE is more primitive than another. Under the Emperor Kotoku, elaborate directions were given for the construction of the tombs, the dimensions of which were fixed for various ranks; but these were not adhered to. Neither were the instructions prohibiting the deposit of metal articles in the sepulchres, for these have been found in the north of Honshū and in caves and mounds of apparently later date. It is highly probable also that the decree of the Emperor Tenchi with reference to the building of stone burial chambers, was not immediately followed by the abolition of dolmen building, though it ceased to be general from that time. It might be thought that the presence of *Haniwa* might enable one to date the tombs at which they are found, from the time of the Emperor Suinin. But if Prof. Tsuboi is correct in his view that the *Haniwa* were evolved from the fascine, they were in existence before human figures were adapted to them, and the traditional version of their creation under Suinin is incorrect. Supposing the human figures to have been made under this Emperor, it could only be gathered that tombs accompanied by them came into fashion about the 1st or 2nd century of this era.

The non-mention of *Haniwa* in the Edict of the Emperor Kotoku gives no ground for believing that the custom had lapsed by his time.

According to the returns thus far available, there are nearly as many Yamato sites south-west of the Ise-Ōmi line as in all the rest of Japan, while, as we have seen, those of the primitive people are insignificant. Whether five centuries be enough to account for this difference one cannot yet decide, but we may be sure that it is not an exaggerated estimate.



Fig. 105.



REMAINS OF A STONE ENCLOSURE.

Fig. 406.

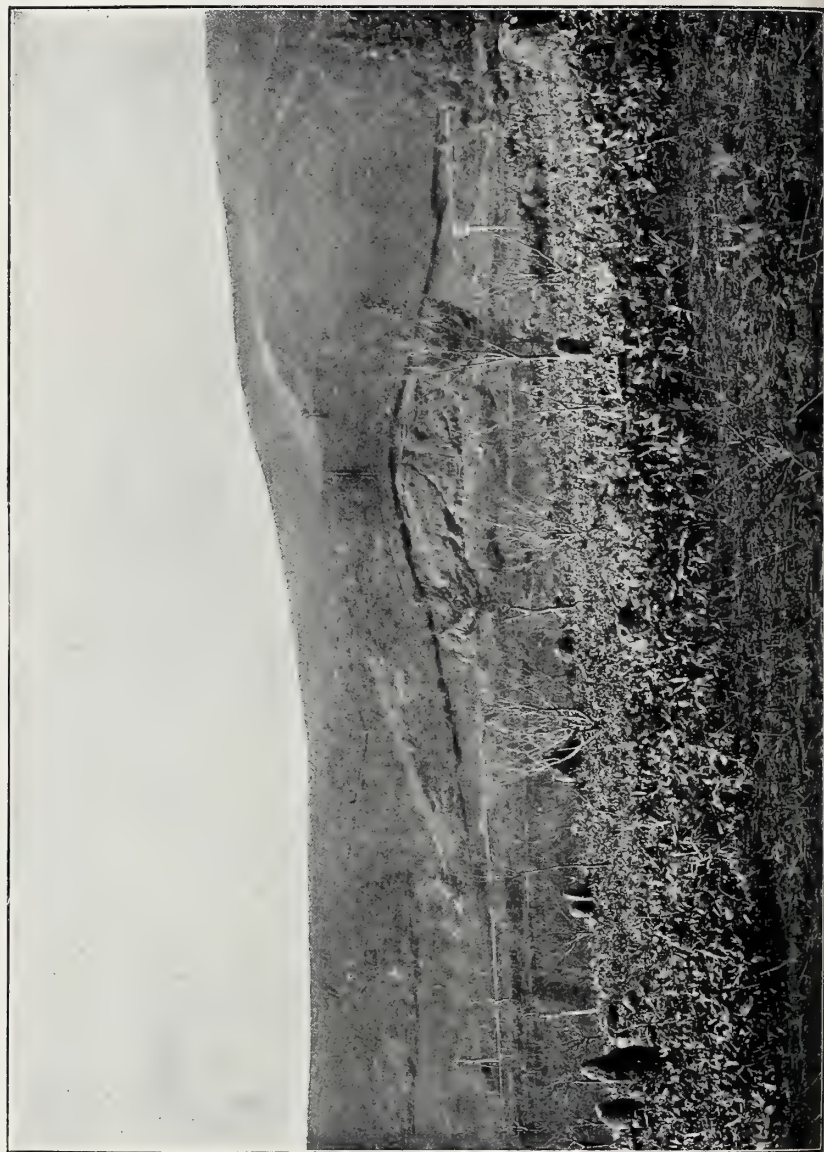


Fig. 407.



STONES (TERRA'S POINTERS) AT OSHORO.

Fig. 408.



IMAGE OF BUDDHA
CONTAINING HANIWA FIGURE.

CHAPTER XIV.

RELIGION.

From the standpoint of social customs and the arts of life, the mental traits of existing savagery, though differing in some important respects from our own, present a close degree of kinship. Nevertheless, the beliefs and related practices of primitive peoples appear at first sight so naïve, so incongruous, so weird or so abominable, that one is tempted to infer an entirely different order of mind. A connecting link is furnished by the study of folklore, which has revealed many essentially primitive customs and superstitions in the very midst of European civilization, while history assures us that the doctrines and ritual of ancient nations occupy a position between those of savage and of advanced religion.

In his "Primitive Culture," Tylor demonstrated the close relation between primitive and advanced religion. Herbert Spencer likewise, in his "Sociology," laid bare the foundation of all religious belief, and showed that the circumstances which confronted primitive man were largely responsible for the trend of his thought and the interpretation which he sought to place upon them.

To primitive man, the formation and disappearance of mist and clouds simply mean that they come and again conceal themselves. The development of the plant or animal from seed or egg, the metamorphosis of insects and their occasional mimicry of twigs, leaves and other objects among which they live, conspire to support the notion that things suddenly change their form and are capable of a dual existence. Shadows, reflections and echoes confirm the conviction, resulting from dream experiences, that something belonging to the individual comes and goes and can witness and take part in events, while the body, temporarily deserted, is lying sightless and inert. Suspended consciousness from accident or disease, further exemplifies the detachment of the personality from its association with the flesh.

At death, the breath (spirit, ghost) "goes out" but does not return. The self which saw, felt and acted when free from the body has left its tenement for good, and the latter, being now useless, undergoes corruption and dissolution. The self, or personality, continues its existence, either retiring into the backwoods or other secluded spot, or links itself to some body, be it mineral, vegetable or animal. Whether attached or not, the ghost possesses substance and force.

From the primitive standpoint, death is a transmutation of personality. To this personality belong the powers attributed to it "while in the flesh," the powers of the chief, who is usually also a medicine-man, and the evil or benevolent propensities of the

deceased. The dislocation from the body recalls the enhanced powers of the dream state and is therefore regarded as a guarantee of ultrahuman ability. But whether the ghostly talents be of a general or special order, their activity is solicited on the part of the believer by cajolery, bribes, threats, or even punishment.

The evidence for the continued existence of the personality lies, not only in the happenings attributed to it, but in illusory manifestations of its presence. It sometimes appears in dreams and on rare occasions while awake. The after-image, which results when the eyes are turned from the fire or rushlight to the gloom of the hut* or forest recess, or some phosphorescence, or an undetermined form in the obscurity of the night, may act as the suggestion for a phantasmal hallucination. An untoward sensation of sound, touch or smell conveys the impression of a presence.

The phase of expectant belief so essential to the success of the spiritualistic séance, is a normal condition of primitive man, who is habitually in receipt of hints or signs from dislocated personalities. Tylor has given numerous instances to prove that "the received spiritualistic theory of the alleged phenomena belongs to the philosophy of savages. ... As to the presence of disembodied spirits, manifesting themselves by raps, noises, voices and other physical actions, the savage would be perfectly at home in the

* The evening and morning twilight, and semi-darkness generally, are most favourable to the development of the after image and to hallucination. These conditions, which are best adapted to the spiritualistic séance, were shared by primitive man.

proceedings, for such things are part and parcel of his recognised system of nature." *

Spencer pointed out that the superstitions of primitive man "habitually imply the ascription of life to things not alive," and he clearly proved that fetichism and allied beliefs, which illustrate this confusion, are "secondary beliefs into which primitive man is betrayed during his early attempts to understand the surrounding world. The incipiently speculative stage must come after a stage in which there is no speculation—a stage in which there yet exists no sufficient language for carrying on speculation." † The germinal error was to be sought for amid those experiences which mask the distinction between the animate and inanimate. "There are continually recurring states in which living things simulate things not alive." This "incipiently speculative stage" must have followed a stage of keener scrutiny of the environment than is permitted to the lower mammals. For instance, the latter rarely take dead matter to be alive, but have no definite conception of life in the vegetal world. Locomotion and purposive motion, so characteristic of animals are the least evident traits in vegetal life, and it needed superior observation to detect vitality in the latter. Yet the admission of life, in spite of such obvious deficiencies, brought animate things a step nearer to the inanimate.

The necessity of adapting his fixed belief in the transmutation of personality to an environment in

* Tylor's "Primitive Culture." Vol. I. pp. 155—6.

† Sociology. Vol. I—I. p. 133.

in which the distinction between the living and the dead was not always easy, led to the imputation of life to things which give not the least sign of it. Animism, as Tylor has called it, was the criterion by which existing phenomena were cognosed. Through this postulate the whole visible world became visibly or invisibly alive.

But how comes it that a belief admittedly based upon furtive and illusive experiences should so persistently, throughout untold milleniums, outweigh the evidence of the senses? Why should man deliberately retain a conviction which is belied by everyday observation? The experience of the past century or two has shown that it is possible to preserve a belief in spiritual agencies and yet ascribe natural phenomena to natural causes. Granting that man had reached something like his present physical development 200,000 years ago and that he has attained to the speculative stage for 100,000 years, why is it that he has only had a faint glimmering of natural causation for 5000 years and some definite comprehension regarding the same for less than five centuries?

This cannot be adequately answered here, but a few considerations which have not, so far as I know, received attention, may briefly be advanced in explanation.

This habit of regarding everything as possessed of life has not been confined to any one section of the human race. Available information seems to make it certain that this belief has sprung up wherever man has worked out his destiny. If

this view be correct, this mistake must be regarded as inevitable, as a necessary consequence of man's relation to his environment. But the latter is a relatively constant factor, whereas man has conspicuously changed. This necessary error must then, with due regard to ambiguous presentments of the environment, be traceable to the condition of the human mind at the time of its inception.

The discovery that the organs of thought and sense perception are anatomically distinct in the higher mammals, and the high probability that even in man they are not yet fully co-related, may give a possible explanation of the empirical truth that observation and judgment do not always coincide. Though structurally and functionally distinct these centres have physical communication and are capable of independent as well as of united activity. Their independent activity is established by the fact* that one may be engaged in collating sense impressions into perceptions at the same moment that he is carrying on a process of thought that has no connection with the former. Moreover, both processes may go on simultaneously or consecutively without involving consciousness at all.

It is almost indisputable that the operations of the thought organ are not revealed in consciousness. Thought comes to us ready made and we only become conscious of it when its elements have been synthesised in definite form, unless we strain to follow each step by means of verbal symbolism. Self-consciousness, or knowledge of difference

* Ascertained by crystal-gazing and hypnotic experiments.

between kinetic thought and the environment, is often assumed to be the prerogative of man, whose conduct is supposed to take place under its illuminating guidance. But this self-consciousness is merely consciousness of a definite relation which can only be sustained by the substitution of language for pictorial ideas, as a little introspection readily proves.

Civilized man has developed an extensive vocabulary which enables him to correlate phenomena and to facilitate the operations of the thought organ by substituting symbols for pictorial ideas. The secondary symbols which constitute the art of writing, even when ideographic, are rarely used as a medium of thought, though they may ultimately be adopted for this purpose. His conscious thought is conditioned by sounds more than by sights. But the savage has a meagre command of language. His thoughts are more pictorial than verbal.* Not only is

* The act of counting, which involves the use of verbal, written or other symbols (such as the quipus) for the various degrees of that simultaneous relation called number, is so rudimentary that many savages cannot express individual values higher than five (the fingers of one hand) or the double of that (the fingers of two hands) without the intervening *digits* (6—9). This does not mean that they are incapable of recognising the difference between say, seven and eight articles but it means that they are unable to reproduce these relations in the form of ideas and it implies a haziness of conception with regard to number that is favourable to the confusion between accident and design. *Striking* occurrences assume special significance because they are not co-related with others of the same class. Believing that any object is, or may become, the abode of personality, the factor which determines its choice as a fetich is, as Prof. Haddon has remarked, (*Magic and Fetichism*, pp. 72—3), the attraction of the attention by unusual appearance or behaviour. This writer quotes an instance given by Tylor. "The visitor took up a stone about as big as a hen's egg and its owner told its history. He was once going out on important business, but crossing the threshold he trod on this stone and hurt himself. Ha ha! thought he, art thou here? So he took the stone, and it helped him through his undertaking for days." (*Primitive Culture*, Vol. 2. p. 158.)

he deficient in the facilities of communication whereby the experience of one individual corrects that of another, but his degree of self-consciousness must be estimated by his defective supply of words. He is less conscious of the distinction between himself and his surroundings. His thoughts come and go with less supervision and the perceptions evoked by impressions from his environment are less co-ordinated with the ideas or judgments formed by the rudimentary organ of thought in the cortex of the brain. The latter is known to be less developed in primitive, than in civilized man. Probably the tendency to hallucination is enhanced by his relative proclivity to pictorial thinking as well as by divided consciousness which results from imperfect co-ordination of the thought centres.

That humanity is very far from having reached a satisfactory state of development with regard to these organs is evidenced by the hallucinations, delusions and incongruities of thought which beset even the most highly educated among civilized peoples. We have inherited not only an advance upon the brain organization of our savage ancestors, but some of its imperfections, perhaps accentuated by 100,000 years of erroneous belief. Although the evidence of the transmission of ideas is wanting, it can scarcely be doubted that this lengthened interval of 3000 generations or over, has left its mark upon the cortical apparatus of thought.

All religion is an attempt to define and adjust man's relations with the unknown by reference to perceptions invoked by his environment. We now under-

stand that when the heathen "bows down to wood and stone," it is not due to blindness but to observation of his surroundings and, so far as his unaided senses permit, to reasonable inference from the data acquired. When he seeks for aid from the ancestral shade, the sun, the fire, the fetich thing, the proceeding is based, not upon childish impulse but on a process of more or less logical deduction. If his premises have been at fault it is due to reliance on the evidence of his senses. If his conclusions are not entirely correct it is because the primitive organ of thought has accepted analagous phenomena as identical without correction from subsequent sense impressions. If superstition was the inevitable result of deduction based on superficial resemblances, it is none the less a monument to the reasoning capacity of early man.

Belief in the transmutation of personality led primarily to propitiation of the manes and involved the proceedings which have, perhaps too loosely, been described as ancestor worship. Instinctive dread of the unknown, circumstances of violence or disease leading to dislocation of the personality, abrupt separation from survivors, the resulting decomposition of the body, with dreams, portents and sometimes phantasmal appearances, conspired to create a feeling of awe. Though the ethics of primitive man are less defined than our own, a preponderance of conduct agreeable to his survivors would create in his favour a balance of regret at his departure, while the memory of evil propensities would induce fear. In either case offerings would be

made to the departed as a means of securing good offices or warding off mischief. Chiefs, medicine-men and persons of exceptional standing, or character, would be propitiated after their change of state, not only by the family but others desirous of protection or help, so that the idea of the ancestor would be subordinated to that of the god. For this reason historical accounts of ritual and belief are inadequate, inasmuch as they deal with national deities such as the ancestors of kings, and make only bare reference, if at all, to the family gods whose ancestral character is usually more strictly preserved. The fetich is not the most primitive form of belief, but follows on the belief in the shifting personality. Whether sprung from the notion that the personal influence passes into the grave-post, grave-stone, or into the effigy of wood or clay, it is far from an unreasonable deduction. The obstinacy with which this hypothesis has persisted amid all the changes which have led up to the present European culture is a striking confirmation of its hold upon the primitive mind. The amulet and the talisman still flourish in the undergrowth of European civilization and are not entirely excluded from its intellectual level. These are nothing less than survivals of fetichism, in which the idea of personal identity has been merged in that of "virtue" in its later and restricted sense.

Could nature gods have been conceived of before the notion of the ghost? No. Without presuming to say that each nature deity has been evolved from a separate ancestral nucleus, it is undeniable that

the imputation of human thoughts and emotions to natural phenomena involves the postulate of the dissociated personality. The lower animals have æsthetic emotions as well as those of fear and affection, but these are direct responses to certain presentments, be they animate or inanimate. The movements of the heavenly bodies, the massing of clouds and the overwhelming violence of the storm, the gorgeous hues of the sunset and the dawn and the majestic proportions of the mountain masses are little more to men than to the animal unless invested with understanding. It is the attribution of human qualities and propensities to natural phenomena that clothe the conceptions of terrific force, exalted grandeur, etc. in the garb of divinity. In this manner not only have specialized nature gods been created but various abstract deities have been synthesised from selected human and dynamic characters.

The animistic hypothesis of creation and control has not only survived to the present day, but is held by the great bulk of the human race. With a few doubtful exceptions in lowest savagery and a small sprinkling of the enlightened, belief in the existence of ghosts or spirits is universal throughout humanity. If we substitute for a multitude of ultra-human personalities the notion of an all-pervading spirit, we merely synthesise this primitive belief. That such views are still accepted by persons whose opportunities for investigation are incomparably more advanced than those of primitive man is attributable to the fact that the development of

the human thought organ has lagged behind the extended environment which collective investigation has brought within its purview. All religion is primitive.

In Japan, the worship of the dead, that is to say of the transmuted personality, is the foundation of the national religion. It cannot be said to constitute the wider portion of this belief at the present day. The Chinese name of Shinto, "the Way of the Gods," by which the religion is known in its historic aspect, includes not only the worship of the ancestral spirits but those of nature and abstract deities and, it must be admitted, some degree of fetichism. Ancestral worship is not the most prominent element in Shinto. But I cannot follow Aston or Dickins in the endeavour to minimise the significance of ancestor worship in the national religion. "There can be no doubt," says Dickins, "that true ancestor worship in Japan is of Chinese importation."* This holds good only so far as the Japanese themselves may be said to be a continental importation. Aston, on the other hand, remarks:—"It is impossible to say whether or not an acquaintance with the old state religion of China—essentially a nature worship—had an influence on the prehistoric development of Shinto. The circumstance that the Sun was the chief deity of the latter and Heaven of the former, is adverse to this supposition."† Nor is there anything in Japan which corresponds to

* "Japanese Texts," Introduction. p. LXXI.

† "Shinto, The Way of the Gods" p. 1.

the Shangti of the ancient Chinese." Prof. Giles has remarked that Heaven, now written 天, was originally an anthropomorphic character.* Thus



大 were the most ancient forms, followed by 𠂔 and 𠂔, with some varieties, finally ending in 天 the present writing.† Here we have a graphic record of the evolution of the worship of Heaven from the expansion of a human personality. Though there is no definite counterpart in Japan of Shangti, the Supreme Ruler, the Sun practically fulfils this function and there can be no question of the human character of its associated personality, Amaterasu no Oho Kami, the Great Heaven Shining Deity. It is possible that this deity was derived from the Vedic, Chaldean and Persian Mitra, Mitras or Mithra. It is so easy to build an hypothesis on the similarity of sounds that one may readily fall into error on this account; but I may point out some resemblance of the Mythraic legends to those of Amaterasu, as affording some likelihood that she was identical with Mithras. Both were Sun deities and both were deities of vegetation. Mithra was born in a cave, Amaterasu hid in a cave and came forth

* "Religions of Ancient China." pp. 13—6.

† The above characters are copied from Takata's compendious work, published by the Government Printing Bureau.

again.* An ancient sculpture of Mithra shows the deity with several attendants, including a crow sitting on a rock, which recalls the Sun crow of Japanese mythology. In Persian mythology, Mithra, the "Friend," is created by Ahura Mazuda, the equivalent of the Sumerian Zi-ana, the "Spirit of Heaven" (or merely Ana, Anu, Heaven), as Amaterasu is created by Izanagi. In the Vedic account the Sun is the eye of Mitra-varuna, while in the Japanese version Amaterasu is born from the eye of Izanagi. From western Asia perhaps came the Chinese myth of the birth of the Sun and Moon from the eyes of P'an Ku, who carved out the Universe, as also that of Amaterasu and Tsuki-yomi (Sun and Moon deities), from the eyes of the Yamato creative deity. The "Heavenly piebald horse" which was flayed by the storm god Sosa (or Suza) and thrust into the weaving hall of Amaterasu, is reminiscent of two sources, distinct, yet possibly associated in a remoter past. In the Vedas "the speckled one is a cow, the mother of the Storm Gods"† from its analogy to clouds; a piebald horse might conceivably have been specially emblematical of the sun.

* Mithraism not only entered into the religion of Egypt, but spread to Britain through the Roman invasion and became incorporated into the Christian faith; probably indeed it formed the foundation of the latter. The burial of Jesus in a cave (and one account of his birth in a cave,) together with other analogies lend support to this view. This was recognised by the Christian fathers who attributed the resemblance in doctrine and ritual to the work of the devil. But there is no question that Mithraism long preceded Christianity. As J. M. Robertson has remarked, had Mithraism been copied from Christianity, it would have been sufficient for the early Christian apologists to prove this. The prevalence of Mithraism in early times is somewhat favourable to the assumption that it was propagated to Japan.

† Macdonell's "Sanskrit Literature." p. 109.

However that may be, the horse was sacrificed to the sun and its connection with that luminary is explicitly stated in Indian and Greek mythology. "In the Vedic ritual the horse was regarded as symbolical of the sun and of fire." * The Egyptian priests "wore the dappled skins of leopards and fawns as symbolising the starry heavens." † The flaying of victims for sacrifice is well known in many instances of ritual, the skins being then worn by the priests. The Persians and Scythians used to slay "a 'messenger' to the god, flaying him and stuffing his skin with the arms outstretched." ‡

A scarcely less complete analogy is found in the case of Demeter, usually regarded as the fruitful "Mother Earth," but whose association with the horse prompts the query whether solar attributes were not also imputed to her. "The wandering Demeter had assumed the form of a mare, and was violently wooed by Poseidon in the guise of a stallion. The goddess in wrath at this outrage, attired herself in black mourning raiment, and withdrew into a cave, according to the Phigalians, and the fruits of the earth perished." § It is not unlikely that an eclipse is here referred to; otherwise the approach of winter, which has been expressed in myth in somewhat the same fashion. In the case of Amaterasu there is no room

* Loc. Cit.

† Robertson's "Pagan Christs." p. 393. Also, "Dionysos the God of the Night Sun, wears the dappled deerskin." (Christianity and Mythology). p. 416.

‡ Ibid. p. 181. As the cow was but little known in prehistoric Japan, the piebald or dappled horse might have taken on the cloud analogy, the emblem of the storm god Sosa.

§ Lang's "Myth, Ritual and Religion." Vol. 2. p. 285. He also quotes Max Muller to the effect that "Erinnys (Demeter) is the Vedic Saranyu, the Dawn."

for doubt. We are expressly told that "the whole Plain of High Heaven was obscured and the central land of reed plains darkened." *

The first five gods mentioned in the Kojiki were both in "the Plain of High Heaven" and might possibly be stellar deities. The last two were produced "from a thing that sprouted up like unto a reed-shoot, when the earth, young and like unto floating oil, drifted about medusa-like." One of these might have been a comet or meteor, and the other the Heavenly-Eternally-Standing-Deity, † the pole star, or possibly the sun, in which case there are three distinct versions of its origin. Reeds are mentioned in the Babylonian cosmogony and the finding of Moses (a Babylonian legend) in a bed of reeds is suggestive. Onkulukulu, the Zulu Creator, came from a bed of reeds.‡ According to one version of the Nihongi three deities were produced from the "reed-shoot," apparently all terrestrial. An obscure genealogy leads to the appearance of Izanagi and his spouse Izanami, both of whom have essentially human attributes. These names have been translated as "Male who Invites" and "Female who Invites," from their resemblance to *Izanafu* "to invite" and the masculine and feminine terminations *Gi* and *Mi*. But Aston observes:—"It may be suspected that this is, after all, a folks etymologie, and that Iza or Isa is simply the name of a place, *na* being another form

* Chamberlain's Kojiki. p. 54.

† Ibid. p. 15.

‡ Spencer's Sociology. Vol. I. p. 290.

of *no*, the genitive particle." * In his "Shinto," he says:—"It is even possible that these Gods were simply the Gods of Ise (Ise no gi and Ise no mi).† It seems likely, however, that the names of the creative deities were settled before the Yamato reached Ise. It may appear still farther fetched to trace the origin to Zi-ana or Ana, with the masculine and feminine terminations added. As frequently happened, Ana, the male God, was afterwards provided with a consort, Anatu, just as Bel was with Belit, and there is every reason to suppose that Izana-mi was an afterthought to Izanagi, that indeed the terminations were added for the sake of making the distinction. In that case the name would be Izana. We have also a link to the Vedic mythology and ritual in the death of Izanami (burnt while giving birth to her child, the fire God, Kagu Tsuchi), and a glimpse of fire worship, still extant in Japan. The birth of Agni, the "Friend of Man," the central deity of the Vedic Pantheon is thus described:—"This process of generation has begun; let us rub out Agni as heretofore. This God is deposited in the two pieces of wood ... He is produced of them like a new-born infant." Also:—"the son, no sooner born, devours his parents."‡ Ritual Fire is still produced by friction at Ise and Izumo. There are minor points of resemblance to the religions of western Asia which cannot be entered upon

* Nihongi. Vol. I. p. 6.

† "Shinto. The Way of the Gods." p. 172.

‡ Ragozin's "Vedic India." p. 160. The Chaldean "Ana" and the Japanese "Ama," both mean "Heaven." An "Anu" or "Ana," worshipped in Munster as a goddess of prosperity and abundance, was described as the mother of the Irish Pantheon.' (Mythology of Ancient Britain and Ireland by C. Squire, p. 15.)

here. Enough has been said to indicate a propagation, not only of general belief, but also of some detail in dogma and ritual, from the great world religions of India and the region of the five seas. Nor is it necessary to pursue the subject of Japanese polytheistic religion and ritual, which will be found treated in authoritative detail in Aston's work on Shinto. I shall content myself with a few considerations in favour of the view that worship of the departed personality lies at the root of Japanese religion, and of pointing out some survivals that are not treated of elsewhere.

Little can be said about the religion of the primitive people. But bearing in mind that a belief in the transmuted personality is the *fons et origo* of all religious belief, we may reach some conclusion about the vestiges and survivals which have come under notice. The relics of fetichism are too apparent in Japan to escape notice. They clearly indicate that this cult must have been widespread in ancient times. The images (*Dogu*) from the primitive sites form a connecting link between ancestral and fetich worship. In other lands the transition has been seen in the inclusion of some remains of the deceased, such as blood or ashes, in the composition of the figures. The universal custom of making offerings to these images is the best proof that they were not merely effigies, but were supposed to embody the REAL PRESENCE. Not only does this custom prevail in existing savagery and barbarism; it was common in ancient and known in mediæval Europe. Such images have been described at the burials of Charles

6th of France, Henry 5th of England, and other monarchs of Europe. The practice of sympathetic magic, by means of which the treatment of a model, however crude, is supposed to influence the person represented, is based on the essential connection which was imagined to exist between the ancestral image and its original. In Figs. 144 and 138 we see the passing of the image into the anthropomorph in which sometimes not more than one feature remains.

To what extent the *Seki-bo*, illustrated on pages 162—3 and in Fig. 67 A, may be regarded in the above light is not clear, but that many of them are phallic is beyond question. Some of these stone rods might have been used as weapons and as insignia of authority; but the majority were in all probability phallic deities, recognised by the Yamato and having no little influence. Whether or no these originated in the grave-post and derived their virtue from the personality beneath,* or whether they were directly conceived of as the symbols of renewed existence, they must have been regarded as possessed of influence in the days of the primitive culture. Though none have been found in the Yamato tombs, many have been recovered from the primitive sites and a large number from situations which indicate their prevalence in historic times. The phallic cult was either propagated from the primitive people to the Yamato, or it was originally common to both, as it proved itself to be in later times. Should the former view be correct it becomes

* Grant Allen, "The Evolution of the Idea of God." Chapter 5.

a question how far the mythology of the Kojiki and Nihongi is a mixture of indigenous with foreign belief. A somewhat cursory study of Ainu religion has furnished reasons for thinking that the primitive faith has been amalgamated with that of the Yamato during the early contact of the two peoples to a much greater extent than has been supposed. I agree with Batchelor in thinking that the Ainu word *Kamui*, which stands for "God" in the sense of superhuman, greatly excelling, or (literally), superior, as *Kami* does in Japanese, has not been borrowed from the Yamato culture, but perhaps the reverse. The word *Ka*, meaning the top of anything* remains in the Ainu language to indicate the origin of *Kamui*, but is not found in Japanese, though the word *Kami* here means not only a deity but anything which is high (above, on top). Both *Seki-bo* or stone rods and *Dogu*, or clay images, were doubtless regarded as *Kami* or *Kamui*, by the primitive inhabitants. A peculiar malignity has often attached to the deities of conquered peoples, and it may be that the Yamato adopted the phallic god in order to ward off inroads of the outstanding natives, though there are indications that this emblem was employed in their earliest mythology. Possibly for this reason the phallus was constituted guardian of the roads and a festival in its honour held yearly on the frontier. In such a capacity this *Kami* was known as *Do-so-jin* (Road-Ances-

* One is said to have been found in the scil of a Yamato tomb and I have met one some inches under the surface of a mound.

† Batchelor's Dictionary.

tral-Deity) or *Sahe-no Kami* (Preventive-Deity) which last included the male and female *Yachimata* (Many-street, i.e., cross-street) personages, and *Kunado* (Come-not-place). Now, *Funado no Kami* (properly, *Kunado*) (Come not Place Deity), or *Tsuki-tatsu-funa-do* (Thrust-erect *Kunado*) as the *Kojiki* has it, was, according to a version of the *Nihongi*, thrown down by *Izanagi* with sundry other articles, including a peach, to retard pursuit on his retreat from Hades. The association with the peach, a recognised emblem of the cult, gives emphasis to the phallic nature of *Kunado no Kami*, and the sense of the word clearly shows its prohibitive function. The *Sahe-no-Kami* may have been boundary posts, like the anthropomorphic posts of Korea. The curious custom of beating with the *Kezuri-kake*, already referred to at page 585, and that of hanging up these emblems as a protection against malicious influences, links the *Sahe-no-Kami* with the ancient British practice of beating the boundary to expel evil spirits. The fact that they were used for the protection of fields against malign occurrences may have originated with the idea of guarding them against the primitive inhabitants. One of their principal functions was the protection of travellers, for which they were in request in quite recent times. They were employed as a protection against infectious disease in particular, but also against other maladies. The notion of prevention and perhaps also their guardianship of ways of communication entered into this conception. As Aston has remarked, the "conception of lusty animal life, the

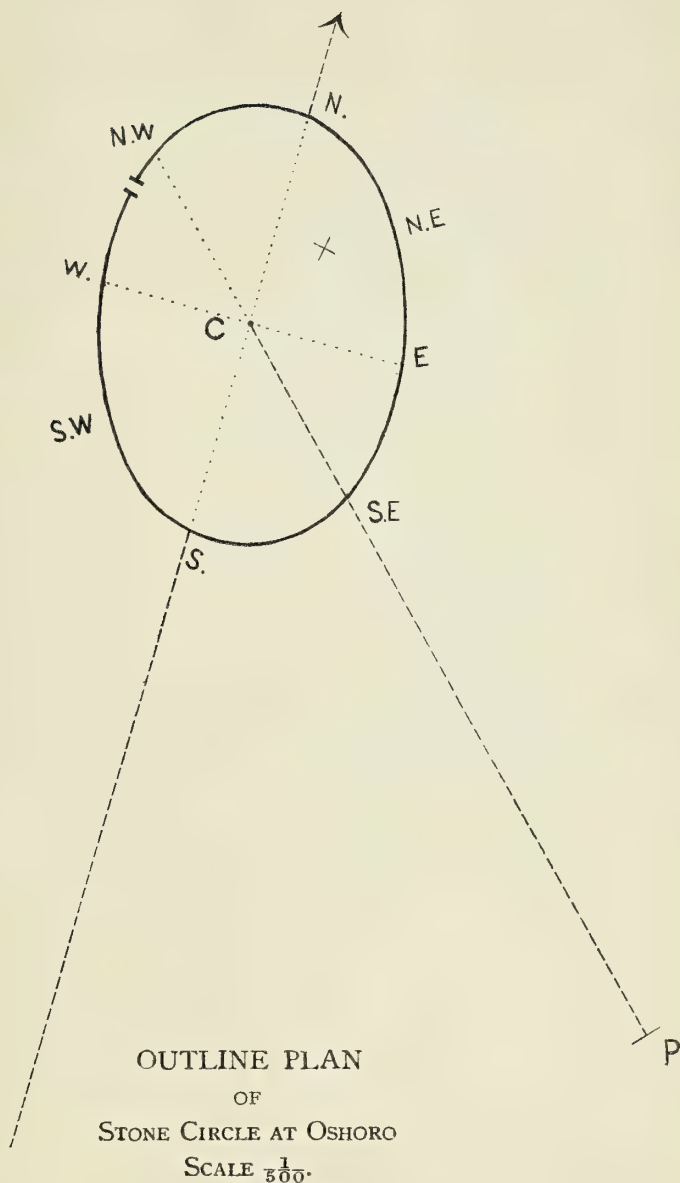
foc to death and disease" probably participated in the prophylactic virtue of the phallic deities.* According to Y. Deguchi,† the *Sahe-no-Kami* were in historic times worshipped and supplicated in order to gain a suitable wife or husband, for easy parturition, for good fortune in war and in the affairs of life, for suitable weather and to ward off the attacks of insect pests in the fields generally and to ensure good crops. On the 15th day of the first month of the year a special festival or *Matsuri* was held in honour of these deities which was accompanied by feasting, drinking, and saturnalian revelry. Within the past 30 years courtesan processions have been discouraged by the government but one or two came under my notice somewhat less than 20 years ago, the phallus being then very conspicuous. In former times the *Sahe-no-Kami* were worshipped in the open air, but latterly some were accommodated in shrines. Though this cult has gone out of vogue, one may still see, in country districts, phalli of stone, rarely of wood, except in the north of the Kwanto. These objects which are usually contained in small shrines, are less numerous in the west and south than in the Kwanto and north, where the contact with the primitive culture was more prolonged.

Menhirs, or standing stones of megalithic dimensions, are almost unknown in Japan and I know of no cromlech or stone circle outside of Yezo. There are one or two references in the *Kojiki* and *Nihongi*

* "Shinto, The Way of the Gods," p.

† T. J. Z. No. 192.

Fig. 409.



Between N. W. and W. is a gap, perhaps an entrance, about 4 ft. wide. At P. were two stones and to the east of this some others. At x there is a broken stone pillar. At C. were found many round flat stones.

to monoliths and they might easily have been removed, as stone was and is, much in request. A regrettable instance is afforded in the case of the stone circles near the Okirikapu river in the province of Ishikari (Yezo). About 10 years ago there were many circles on a plateau adjoining this stream, but when I visited it last summer these had all been destroyed in order to repair the bank of the Ishikari river. Many hundreds of stones remain, but the form of the circles, which do not appear to have been large, are scarcely to be distinguished. I gathered from some peasants that none of the stones had been of great size. The largest which I saw, Fig. 405, was 4 ft. 2 in. above ground. At Oshoro village in the province of Shiribeshi (Yezo) there is a cyclolith or stone circle situated on somewhat elevated ground and surrounded on nearly all sides by upland and low hills, Fig. 406. This had been partly demolished to provide grave-stones for the village cemetery, but most of the boulders were in situ. Some were disarranged but one could readily discern the form of this cromlech, which is elliptical, Fig. 409, and but slightly excentric. The long diameter, which lies practically north and south, measured 94 ft., while the W. E. diameter is 69 ft. (35 ft. C.—W. and 34 ft. C.—E.) The N. E.—S. W. diameter is 72 ft. (C.—N. E. 38 ft. and C.—S. W. 34 ft.) and the N. W.—S. E. diameter is 88 ft. Near the N. W. point is a gap about 4 ft. in width between two vertical stones. Perhaps this was an entrance. At a distance of 198 ft. from the centre I found two stones, Fig. 407, which look as if they might have been pointers. That in the

foreground is 4 ft. 6 in. and the pitted stone behind is 3 ft. 8 in. in length. To the west of these are a few small boulders and formerly there was a roughly hewn monolith 7 ft. long, as I was informed by the intelligent and hospitable farmer on whose land the monument is situated. Almost due south from the centre of the cromlech there had been a few elongated stones, but these had also been removed. In the centre of the ellipse there was a large number of flat water-worn stones of singularly even contour, showing that they must have been carefully selected; underneath these was a flat oval stone of perfect form measuring 1 ft. 5 in. by 1 ft. 3 in. I dug down over 3 ft. for an area of about 10 ft. sq. around the centre, but found nothing. At the point marked by the cross on Fig. 409 there is a piece of a broken pillar of stone (24 ft. from the centre). This had been hewn into pentagonal form and was buried about 2 ft. in the soil. I was told that originally there were five upright stones of this form and that some of them were capped by flat stones. A number of the boulders, but few of which were hewn, were pitted, in some cases artificially. The largest boulder was 5 ft. 9 in. long and 15 ft. in circumference. It is not improbable that this cycloolith was oriented for a particular date of sunrise but this has not yet been definitely ascertained.*

The ground in the neighbourhood of this monu-

* The foregoing measurements were made as carefully as possible, but as I had only a tape-line and small compass with me, I decided to return and take more accurate observations. This has been unavoidably postponed. The weather, too, was not favourable to photography. Although the long bamboo grass was roughly cut to assist the view, the result is not satisfactory.

ment contains broken pottery and fragments of obsidian and I obtained from the farmer some interesting relics of the neolithic phase. In a pit of 36 ft. in diameter, situated about 100 yds. from the stone enclosure, I found some fragments of primitive and Intermediate pottery. This might argue a Yamato origin but as culture contact occurred in the Kwanto the presence of this ware in Yezo is not surprising. The Ainu have constructed stone enclosures known as *Chassi*, but further evidence is needed before we can identify this cromlech as the work of the primitive people.

It might be supposed that ancestral worship would be an antidote to anthropophagy, but a multitude of instances could be adduced to prove that the contrary was the case. Whatever view we may take as to the origin of religious belief we can scarcely doubt that human sacrifice had its initial motive in ancestor worship, or at least in the desire to conciliate the vanished personality. The lingering of ritual anthropophagy after the cessation of general cannibalism is explained by the desire to propitiate the departed shades by means of an appreciated diet and the ghostly service of persons slain for that purpose. The rigid conservatism of such rites and the history of their existence and decline elsewhere, render it probable that ancestor worship was the ruling motive for the lingering of anthropophagy in Japan. It is significant that most of the cannibal gods throughout the world have been either ancestral deities or animal gods of totemistic character, in which case their ancestral

origin may be suspected. Though human sacrifice originated during the prevalence of cannibalism, this aspect of the sacrifice may have been lost sight of after the expiry of ritual anthropophagy. The idea of giving a slave to the service of the god has sometimes predominated over, or entirely ousted, that of sustenance. Cases of human sacrifice to elemental, local and other deities have occurred well within historical times, both in Europe and in Japan; in these, the notion of nourishing the god had probably lapsed. I refer mainly to gods of rivers or of the soil, who have received their victims during the foundation work of bridges, castles and, (in Europe), even of cathedrals. Within the last thousand years such sacrifices have been supposed to be of a voluntary character. This, however, was not always the case. Besides, public opinion which condones, applauds, or instigates such sacrifice, is an incentive to it and, according to its unanimity (still recognised as force), detracts from the voluntary character of such action. The distinction between physical and moral compulsion is not always clear when historical instances of this custom are under consideration. Such cases are at least survivals of compulsory human sacrifice.

We have seen that the practice of living inhumation was formerly in vogue at the funerals of Emperors and probably of chiefs. The custom of suicide at the graves of feudal chiefs, known in later times as *Junshi*, persisted until the middle of the last century and may be regarded as a vestige of human sacrifice.

Under the name of *Hitobashira*, (man-pillar) the

practice of human sacrifice by burying alive at the foundation of buildings and especially of bridges to ensure their stability by placating the soil or river god, was prevalent in Japan. M. Teraishi* has given two instances from the province of Tosa. In one case a child was interred in the foundation of a bridge at Okuchi village. In the other, Ichigi, the master of works, during the construction of Muroto harbour, committed suicide, having prayed to the gods to preserve the harbour. S. Fuse† mentions the case of an old woman with a child on her back, who was sacrificed at the building of the Nagara bridge in the province of Mino, of a woman buried alive at some work in Hyogo harbour, and of a man at the erection of a dam across the Asasegawa in the province of Mutsu. Old, poverty stricken men were, he says, more often sacrificed than the young, but instances of the latter are not wanting. There is a well-known legend of self-sacrifice to the sea god of the concubine Ota-tachibana-hime, who plunged into the angry waves and thus saved the lives of her lord Yamato-dake and his suite. Another story illustrates the escape from violent death by the exercise of timely wit. Koha-kubi of the province of Musashi and Koromo no ko of Kawachi, were selected for sacrifice to the river god when the Mamuto embankment was being made "in order to prevent the overflowing of the Northern river." Koha-kubi, "plunging into the water, died. So that embankment was completed. Koromo no ko, however, took two whole calabashes,

* T. J. Z. No. 82.

† T. J. Z. No. 194.

and standing over the water which could not be dammed, plunged the two calabashes into the mid-stream and prayed, saying:—‘O thou River God, who has sent the curse (to remove which) I have now come hither as a sacrifice. If thou dost persist in thy desire to have me, sink these calabashes and let them not rise to the surface. Then shall I know that thou art a true God, and will enter the water of my own accord. But if thou canst not sink the calabashes, I shall, of course, know that thou art a false God, for whom, why should I spend my life in vain?’ Hereupon a whirlwind arose suddenly which drew with it the calabashes and tried to submerge them in the water. But the calabashes, dancing on the waves, would not sink, and floated far away over the wide waters. In this way the embankment was completed, although Koromo no ko did not die.”* S. Wada † has given an interesting description of the “Divine ceremony of Oto,” which is clearly a survival of ritual anthropophagy. The tradition is that near the village of Miyake, in the province of Harima, there was a large bamboo grove, in which lived in ancient times a weasel with eight eyes. Every year the villagers of Hojo were compelled to sacrifice to it a boy and a girl. A priest, however, whose name was Doshin Gasaka, came to the village and rid it of that animal by offering prayers. In commemoration of this matter, a ceremony has been held ever since, on the 10th day of the first month of the year. On the 9th, those who

* Aston's *Nihongi*. Vol. I. pp 281—2.

† T. J. Z. No. 108.

have to participate in the ceremony go to the beach to bathe and spend the night lying on rough mats. The boy and girl are selected from separate families at the ceremony of the preceding year, the age of each being 5 years. The ceremony consists in the decking of bamboo rods, (inserted vertically into two tubs, and branched each with 12 strips of split bamboo) with specially prepared food, including *Daikon* (a kind of radish), cakes, rice, chestnuts, persimmons and paper. One tub contains *Mochigome* (a special rice of glutinous character, used for festival cakes), cleaned rice and white paper, while the other is filled with rice cakes, boiled rice and bracken. These tubs are carried in procession with a stand bearing the intoxicating beverage called *Sake*, followed by the boy and girl in gala dress with their fathers in ceremonial costume. On reaching the shrine offerings are made of dried plum, bracken, *Daikon*, and four other kinds of food. Two hearths have been prepared in which soup made from a *red bean* is prepared in two iron pots. This is then partaken of by those assembled with some other food (*Mochi* and rice cakes). *Daikon* with vinegar, boiled bardock with *red* pepper are followed by *Sake* and the substitution having thus been symbolised, general rejoicing of a hilarious and unrestrained character ensues. The red soup is believed to be an effective charm against losing flesh in summer time.

The Ainu festival of the bear includes the eating of its flesh and the drinking of its blood in its presence and the offering of its substance to itself as the presiding deity of the occasion. In this case the

god is represented by the ghost of the deceased bear, still identified with the head or skull, which continues afterwards to be its abode. Before its mouth a portion of its flesh is placed, and offerings are made of its boiled flesh, millet dumplings, some dried fish and *Sake*.* The opinion has been expressed that the sacrifice is not piacular. But to the primitive mind, the sin of commission is less reprehensible than that of omission. There was no offence against the god, or one's neighbour, that did not have its means of expiation, while neglect to propitiate the deity was fatal. In this sense all sacrifice is piacular. The conception of a god undergoing physical death for the benefit of mankind is well to the fore in this ceremony. The partaking of its flesh and the drinking of its blood is unquestionably an act of communion. Batchelor says, "It is a mutual feast and apparently a feast of friendship and kinship. The very essence of religion according to Ainu ideas (and how true the idea really is in this case) consists in communion with the greater powers; and unexpected though it may appear to us, the people imagine the most complete communion they can possibly hold with some of their gods, their animal and bird totems at all events, is by a visible and carnal partaking of their very flesh in sacrifice." †

I have to suggest that this festival is a survival of ritual anthropophagy. It does not stand alone; it has its parallel in all places and times. Frazer

* "The Ainu and Their Folk Lore." p. 491.

† Ibid. p. 482.

quotes similar practices with regard to not only the bear, but also the snake, the lamb, the buffalo, etc. This writer makes the following remark:—"Such customs are only another form of that communion with the deity, which is attained most completely by eating the body and drinking the blood of the god."*

The following considerations tend to convince one that the bear eating ceremony of the Ainu had its parallel, if not its prototype, in anthropophagy.

1. Historical evidence has established the continuity of the northern Yezo with the Ainu of the present day. This does not exclude the possibility of other races having participated in the primitive culture, but evidence will be given in the following chapter which satisfies one that a race akin to the Ainu inhabited the Kwantō and left shell-mounds in northern Japan.

2. There is valid evidence that the primitive people indulged in some degree of anthropophagy. The Ainu still preserve the tradition of anthropophagy and folk-lore associates the Yezo with this practice, as a sacrifice.

3. The bear is an important totem god of the Ainu and is regarded by many as an ancestor. This animal is believed to sometimes assume human form. The young bear, when being reared for sacrifice, is frequently suckled at the breast of the Ainu women and is treated as one of the family.

4. The racoon, believed to be the "cook to the god of the mountains,"† i.e. the bear in his divine

* "The Golden Bough," Vol. 2, p. 146.

† "The Ainu and Their Folk Lore," p. 469.

aspect, is sacrificed by the Ainu. Through death he enters into the spiritual state and is impressed into the service of the greater deity, just as human ghosts were similarly dispatched as slaves for ancestral or other gods.

5. Instances of commutation and transition in all lands support the belief that such customs do not perish suddenly, but leave behind a trail of modified ritual and folk-lore. A few instances may be given.

In ancient Rome, bread in the shape of the god, and wine, the blood of the wine god, were partaken of as a religious ceremony before the Christian era. At the temple of Artemis, (sister of Apollo), the bear and other wild animals were offered as substitutes for a beautiful maid and youth, who, more anciently still, had been sacrificed to her. In the opinion of Andrew Lang, the goddess of the forest and of the chase might have originally been a bear.* In the Aztec rites, a youth was worshipped for a year as a deity, then slaughtered "with every token of respect" and eaten by the chiefs and priests. Though thousands were slaughtered yearly, actual anthropophagy was confined to a select few, the bulk of the population taking communion with edible images, which, however, were sometimes cemented with the blood of sacrificed boys. "It is clear that the aim was to establish community with him (Huitzilopochtli, the chief god) by taking blood in common."† Tylor gives numerous instances of

* "Myth, Ritual and Religion." Vol. 2. p. 433.

† "Principles of Sociology." Vol. I—I. p. 281.

commutation and modification, and remarks with regard to the communion ceremony of the Christian Church :—"In that Christianity was recruited among nations to whom the perception of sacrifice was among the deepest of religious ideas, and the ceremony of sacrifice among the sincerest efforts of worship, there arose an observance suited to supply the vacant place. This result was obtained, not by new introduction but by transmutation."* The solemn eucharistic meal of the primitive Christians in time assumed the name of the sacrifice of the "mass" and was adapted to a ceremonial in which an offering of food and drink is set out by a priest on an altar in a temple and consumed by priest and worshippers. Further research, however, has made it plain that the early Christian cult adopted, or developed, its ritual from sources which included the commutated sacrifice and the eucharistic meal. The slain lamb was already a substitute for the first-born claimed by Javeh and other gods of the Semitic peoples, and the further commutation to bread and wine was a feature of both the Mithraic and Egyptian cults from which Christianity has borrowed so much of its dogma, ritual and morality.

Partaking of the body of the god, actually as in the case of the Ainu, presumptively as with the Roman, or symbolically as with the Protestant Church, has often originated in anthropophagy, and is based upon the notion of acquiring certain desirable properties or qualities. In Japan, as elsewhere, primitive beliefs die hard, and it is a matter of

* "Primitive Culture." Vol. 2, pp. 409-10.

conviction among the uneducated that specific virtues inhere in the human body and may be utilised for certain purposes. Thus the brain is supposed to be an unfailing remedy for syphilis. Injuries to the *Foramen magnum*, noted in some Ainu skulls, are, as suggested by Prof. Koganei, perhaps due to extraction of the brain after burial. Bones of the cranium, too, have a reputed efficacy with the superstitious. The flesh of the monkey is eaten for its strengthening virtues and as a remedy in anæmia and feminine complaints. The idea has, in all probability, arisen through its resemblance to man. Human liver and flesh generally have a reputation with the superstitious in the treatment of disease, and one or two murders have been traced to this cause within recent years. The liver of the bear is a remedy for painful affections of the stomach and bowels, while its grease is believed to be favourable to the healing of wounds. By association, the power of healing belongs to tombstones:—"a fragment of the Sankatsu sepulchre in Osaka, if powdered and drunk with water, cures consumption." *

It hardly need be observed that such beliefs spring from a primitive stratum which has existed all over the world. Their survival supports the view that cannibalism has been universal. They suggest that communion anthropophagy is responsible for the reputation possessed by many of these remedies. Only a few centuries ago, human flesh was eaten in Europe for its supposed magical virtues. In China the liver of executed criminals is still believed to

* "Japan, Its History, Arts and Literature" by Captain Brinkley. Vol. 5. p. 207.

confer courage upon its partaker, and the human eye is reputed to have special efficacy in disease. Quite recently, if not to this day, powdered human skull was used in Lincolnshire for the cure of epilepsy. In Ireland there is still extant a practice of "taking the clay or mould from the graves of *priests* and boiling it with milk as a decoction for the cure of disease." *

Legendary accounts and archæological facts agree on the subject of human sacrifice at the funerals of chiefs, but one cannot find direct evidence that immolation was practiced at the shrines of the greater deities. Certain survivals, including the flesh-offering in ancient times, permit the surmise that this may occasionally have happened, but we look in vain for the horrors of the Aztec rites, or the holocaust of the Phœnician and other Semitic peoples. The burnt-offering, indeed, is conspicuous by its absence in a land where fire has been worshipped from a remote antiquity. Human sacrifice seems to have been practically limited to supplying the wants of the dead.

The erection of megalithic tombs and gigantic mounds, together with the disposal therein of objects of relatively great value, together with the acknowledged practice of periodic and votive offering to the manes of the deceased, originated in a reason more primitive and imperative than mere respect for the departed, or pride of station. The Rituals show that the spirits of the dead were supplicated and placated, that nature deities were sometimes regarded as ancestral and that, together with abstract deities

* Gomme's "Ethnology in Folk Lore." p. 115.

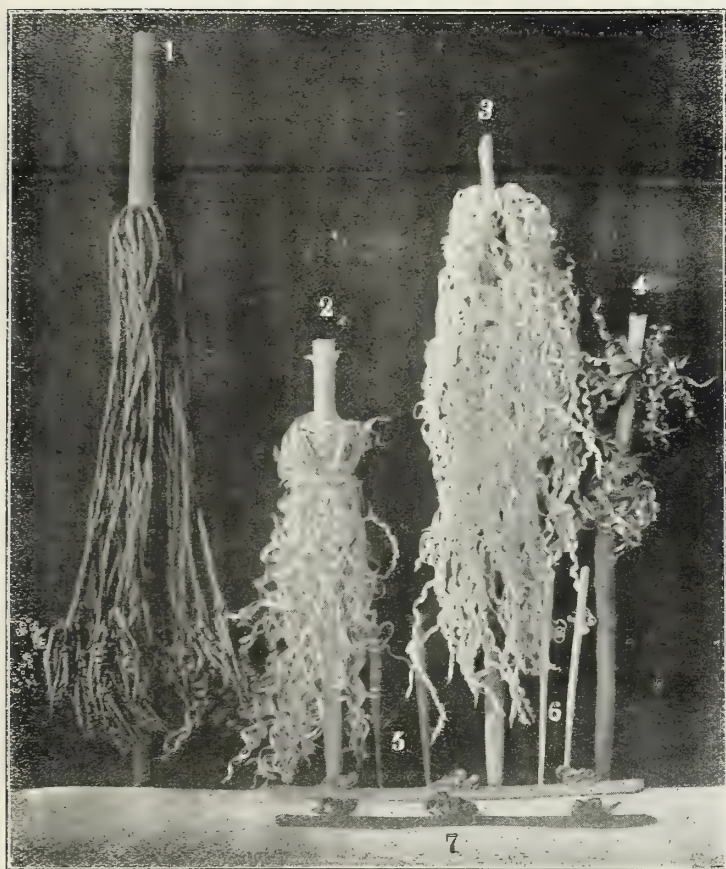
(in name) they were not considered to be impersonal, but were clothed with human attributes and treated as if they were human personalities. So true it is that man not only makes his god after his own image, corporeal or intellectual, but cannot, by the limitation of his thought, conceive it as otherwise. If it is worship to offer one's best to the spiritual powers, to beseech them for aid in time of trial and to praise and delight them with periodic and incidental acts, such as music, dramatic representation and refreshment with food and drink, then the Yamato worshipped the spirits of their dead. It is inappropriate to speak of ancestor worship as a national religion, for the reason that this form of belief is centred round the family and is perpetuated along certain lines that are independent of, or sometimes even hostile to, those of others. The ancestors of the reigning family are worshipped by the mass of the population, not as ancestors, but as lords of their tutelary deities. Other expansions or specialised orders of the superhuman which imagination has concocted from the various attributes of personality, terrific force and so on, take rank as deities and furnish the great majority of the national gods. Ancestor worship is therefore not a state religion; its nature excludes it from this category. It is essentially the religion of the hearth and home. But it is the ancestor of all the beliefs that are classed under the name of Shinto and is at the present day the most prevalent cult, as it was in prehistoric times the most potent faith of the Yamato and primitive people, and the unwritten code which, by

the example of those who had gone before, shaped the conduct of succeeding generations. So deep rooted is this faith in the life of the people that even Buddhism failed to supplant it. A singular instance of this survival is seen in Fig. 408, which represents an image of Buddha in a shrine at the hamlet of Kaminumabe in the province of Musashi. The middle of the breast, which is usually bare in these images, is removed on certain sacred occasions and the head of a *Haniwa* image is revealed. The pictures in the foreground are such as are offered to Shinto and, latterly also, to Buddhist deities. They are called *Ema* (*E*, picture and *Uma*, a horse) and presumably were substitutes for horse sacrifice. Human and other forms are now included in this title. The horse of the Japanese amulet coins is an importation from China within the past five centuries, but may plausibly be regarded as a vestige of the Vedic horse sacrifice.

Space does not permit more than the mention of animal and vegetal cults. Those of the serpent and tree are the most widely known, are practiced by both Ainu and Japanese and are unquestionable survivals from a primitive cultus. Among the less known cults that of the crow is one of the most interesting, and suggestive. There are traces in the *Kojiki* of bear worship, though this is now confined to the Ainu. The ancient classics also give a sacred character to the oak and cakes made of cooked rice wrapped and boiled again in oak leaves are a special feature of the May (Boy's) Festival. The evergreen *Sakaki* (*Cleyera Japonica*) is *par excellence*, however,

the sacred tree of the Japanese. Not only is it continually referred to in the classics, but it has retained its religious significance to the present day, and is employed for ritual garnishing and even as an amulet. According to the Wakan-San-Sai-Zue, it is called "Dragon Eye Tree" in Chinese literature. It is written in two Chinese Characters (榊) which mean "Tree God," but occasionally as (賢木) or "Wise Tree." It blossoms in March and the berries ripen in the fall, so that this tree might formerly have had an equinoctial significance. Its sacred character might also have been due to the appearance of its flower buds about the time of the winter solstice. It seems to have been less an object of worship than an acceptable offering within the time covered by the Kojiki, but it is not always easy to differentiate the two aspects. Much folk lore has gathered around tree worship in general. Offerings are made by the superstitious, and even punishment is inflicted in order to enlist the activities of the tree for good or evil purposes. The tree personality is the *Kodama*, or tree Spirit (*Ko*, tree and *Tama*, spirit) which is also the echo, though written with a different character. When the tree decorations are removed after the festival of the New Year, each spot formerly occupied by them is planted with a small pine branch, presumably for the accommodation of the *Kodama*.

Fig. 410.



SOME FORMS OF INAO ETC.

No. 3, the "Divine Ancestor," has a piece of wood cinder bound to the stem for a heart, and a slip of wood inserted in the binding for a sword. Nos. 5, 6 and 7 represent the arrows, the chop-sticks and the moustache lifters used at the Bear Festival.

Fig. 411.





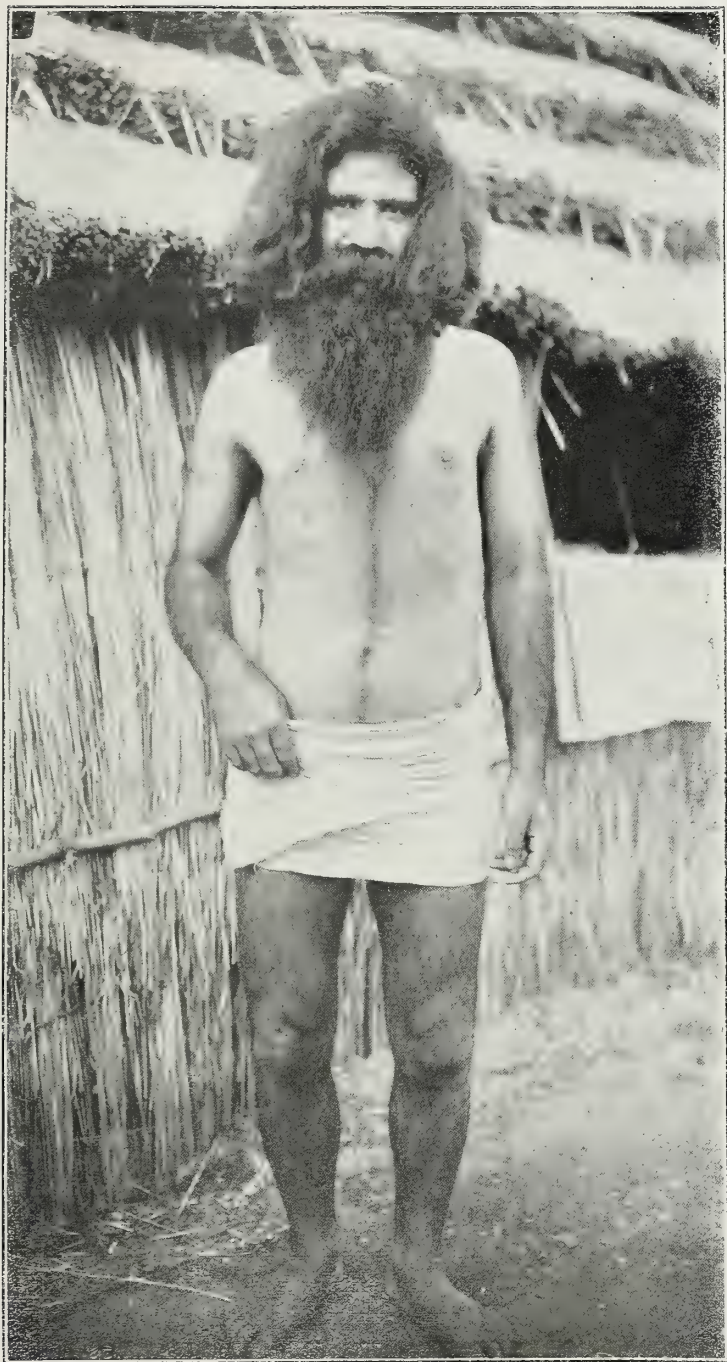
GROUP OF AINU.

Fig. 413.



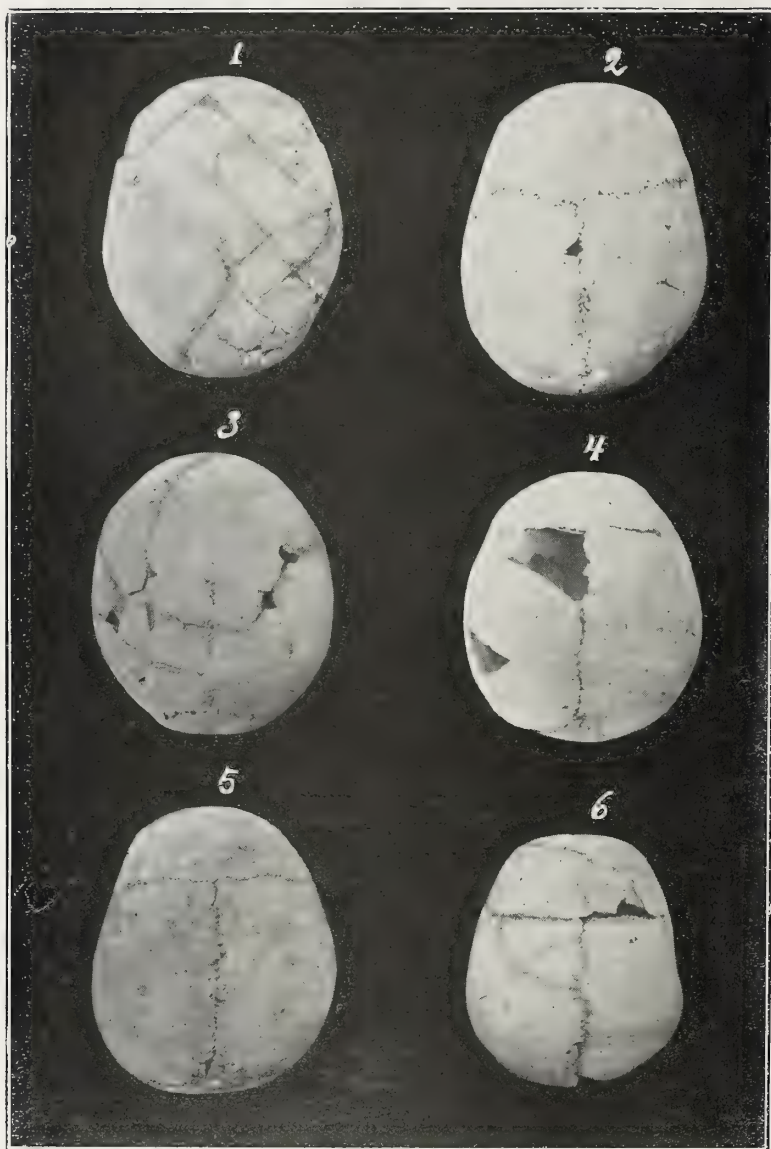
AN AGED AINU.

Fig. 414.



AN AINU,
(Photograph By H. G. Ponting.)

Fig. 415.



NEOLITHIC AINU SKULLS FROM SHELL-MOUNDS (*Norma Verticalis*).
(About Quarter Size.)

(No. 4, lent by Dr. Takashima. The others are from the author's excavations at Mitsusawa).

Fig. 416.

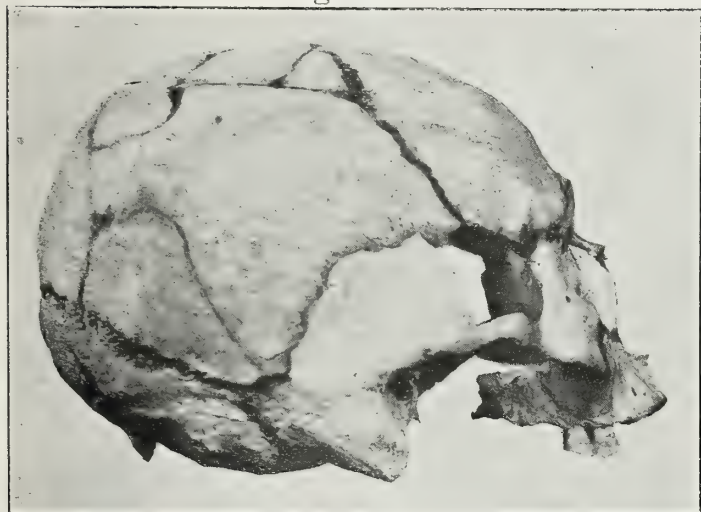
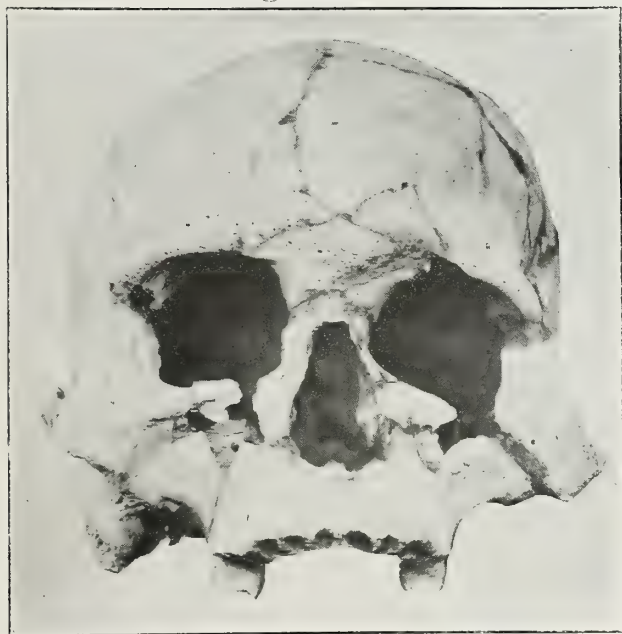


Fig. 417.



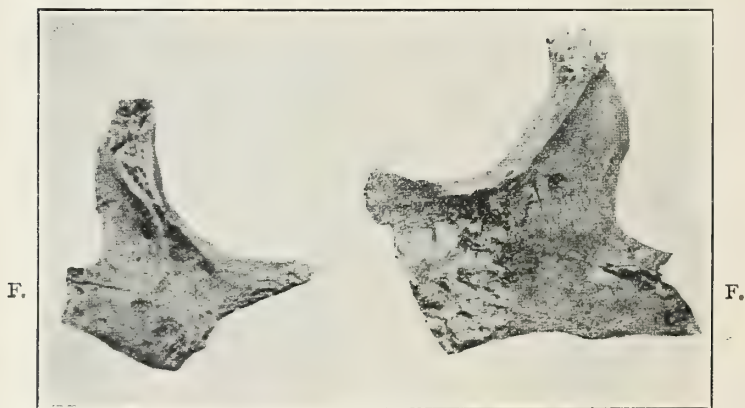
NEOLITHIC AINU SKULL FROM THE AUTHOR'S
EXCAVATIONS AT MITSUSAWA.

Fig. 418.



MODERN AINU SKULL.
IMPERIAL UNIVERSITY COLLECTION.

Fig. 419.



MALAR BONES FROM THE AUTHOR'S
EXCAVATIONS AT MITSUSAWA.

CHAPTER XV.

THE PREHISTORIC RACES.

From time immemorial the Japanese islands have been occupied by a population carrying on that life cycle, which, from its comparatively rudimentary nature, has been called Primitive. These inhabitants, as certain remains testify, formerly possessed also the west and south, but were compelled to retreat by the pressure of the alien Yamato. The Ainu, sole survivors of the primitive inhabitants, now number about 15,000 in Yezo, 2000 in Saghalin and a few hundreds in the Kurile islands. This residue forms a race of fairly uniform characteristics, sufficiently so to distinguish them from other races, though they are a blend of two, or perhaps more, stocks.

They are generally supposed to be excessively hairy, a feature which is exaggerated by contrast with the Japanese. They are more hairy than the average European, Figs. 412, 413 and 414.* But persons with heads of untrimmed hair, and aged people, whose bodies are naturally more hirsute than those of middle age, are apt to convey an undue impression of hairiness. The hair of the Ainu is distinctly

* The last kindly given by H. G. Ponting, whose artistic work has done much to bring the interesting scenic and social features of Japan to the notice of the West.

wavy, occasionally it is slightly curly. The skin is tanned in exposed situations but is rather lighter than that of the average Japanese, though the latter include individuals of fairer complexion than I have seen among the Ainu. The face is broader than in the average European, the forehead low and often narrow, the orbits round, the eyes widely set, of a dark or light brown, or even green, colour showing but little of the falciform fold of skin from the upper eyelid to the nose, known as the Mongolian fold. The eyes have a soft brilliancy and give to the countenance a pleasant and open expression. The height is below the average. According to Prof. Koganei the average height of the male living Ainu is 1566 Mm. and of the female 1468 Mm. Osteological characters will be briefly noted in comparison with those of the bones from the primitive sites.

The Ainu must be held to have undergone some degeneration. Alcoholism and disease have added to the evils of the unsettled life consequent on a progressive dislocation from their settlements during two thousand years of vicissitude. Yet I am confident that they are capable of partaking in a higher culture. Since the present period of Meiji, the Japanese government have permitted them to receive education, and of late years have provided schools in some localities. The children are proving capable and industrious scholars. The government has made special laws for Ainu protection, but these are occasionally evaded. The Ainu appear to be on excellent terms with the Japanese peasantry, but a little official encouragement and sympathy would do much to elevate them.

Before my discovery of skeletons at Mitsusawa, a few long bones from the primitive sites had been described by Koganei, but these did not furnish sufficient data for a comparative study of the neolithic and Ainu races. Much material relating to the primitive culture had, however, been gathered and gave rise to speculation. The presence of Ainu in the northern islands naturally suggested an attempt to connect their culture with that of the shellmounds. But it was ascertained that the Ainu of Yezo did not make pottery, nor use the implements of stone which characterise the primitive sites. They also had a tradition that an alien folk of small stature, to which they had given the name of *Koropok-guru* or "dwellers below" (and also the Japanese term *Kohito* or *Kobito*, meaning "little people, pigmies"), were responsible for the primitive sites in Yezo.

The Rev. J. Batchelor, who has resided many years in this island and who knows the Ainu better than any one living, formerly accepted their story of the *Koropok-guru* and gave it publicity. As the result of a scholarly investigation into the place names of Yezo, which he has proved to be of Ainu origin, as Prof. Chamberlain did with some topographical names of the main island of Japan, Batchelor now favours the Ainu origin of the primitive sites in the north.

Prof. Tsuboi adopted this *Koropok-guru* theory and still upholds it. As he deservedly ranks as one of the highest authorities on Japanese archæology, his advocacy of the view that the Ainu did not undergo a neolithic culture in Japan and that the shellheaps

were not left by them but by a race akin to the Eskimo, requires some consideration.

I need scarcely point out that data regarding culture, though of value in tracing communication, direct or indirect, between various peoples, furnish by no means a reliable criterion of race. But the discussion which, owing to the limited evidence hitherto furnished by human remains, has been mainly confined to the industrial vestiges of the shellmound builders and the culture products of the Ainu, cannot be called fruitless. For, not only has it resulted in much detailed information about these cultures, but as furnishing corroborative testimony, it has an important bearing on this problem.

Before glancing at the evidence thus tendered, let us first consider the Ainu myth as taken down by Batchelor from their own lips:—"In very ancient times, a race of people who dwelt in pits lived among us. They were so very tiny that ten of them could easily take shelter beneath one burdock leaf. When they went to catch herrings they used to make boats by sewing the leaves of bamboo grass (*arundinaria*) together, and always fished with a hook. If a single herring was caught it took all the strength of the men of five boats, or ten sometimes, to hold it and drag it ashore, while whole crowds were required to kill it with their clubs and spears. Yet, strange to say, these divine little men used even to kill great whales. Surely these pit-dwellers were gods."* Transparently mythical as this story is, the possibility that it was founded on remembrance

* "The Ainu and their Folk Lore," p. 13.

of an alien people and culture harmonized with the absence of pit dwelling, stone implements and pottery-making among the present Ainu of Yezo, and seemed to account for the presence of such remains throughout Japan.

Numerous instances, however, could be brought forward to show that an attempted explanation of forgotten vestiges is one of the most common forms of myth. Even in Japan there are other closely related myths which testify to the explanation tendency of mankind. Here, too, relics of the past have their descriptive names, embodying the essence of myth. We have the *Kitsune no kuwa*, or fox hoe, the *Raifu*, or thunder axe, the *Raitsui*, or thunder club, the *Raiko*, or thunder pestle and the *Tengu no meishigai*, or rice-spoon of the Tengu. In the northern districts of Japan the Yamato dolmen is sometimes called *Yezo no Iwaya*, or stone house of the Yezo (barbarian). In the province of Mutsu the ancient Yamato pottery (*Iwaibe*) is called *Namban Yake*, i.e. South Barbarian pottery.* The Ainu speak of dwarfs; ancient Japanese attributed the shell-heaps to giants.

The main points advanced against the Ainu origin of the primitive sites were that they did not make pottery, nor use stone implements and pit dwellings; the patterns on their wooden implements were supposed to exhibit little or no resemblance to those of the neolithic pottery. Later research, however, has proved that pit dwellings have been used by the Ainu of Saghalin and the Kuriles, that they have

* T. J. Z. No. 10.

used pottery and stone implements and that the difference between the patterns of the Ainu* and of the stone phase is less than has been stated, and can be readily accounted for.

When pottery was found in the Kuriles, its coarse and unornamental character and the handles inside some of the pans were believed to indicate another culture than that which produced the ornate ware of the shell-mounds. But iron pots with handles inside have been found in Yezo and corresponding vessels of clay might have been copied therefrom. I have also shown that the idea of inside handles was not unknown to the neolithic potters. It is probable that a decadent art of pottery-making borrowed from the iron model, or from the birch-bark pan, a convenient method of suspension which had long been forgotten. Admitting that this pottery differs from the decorated ware of the primitive sites, it is not at all inconsistent with the statements of history about the Yezo or Ainu. On the contrary, the persistence of a few samples of a degenerate art, all reduced to the level of bare necessity, is entirely in keeping with the history and present condition of the Ainu. Driven from their villages, broken in spirit and reduced to a precarious existence in the inhospitable climate of Yezo, it is little wonder that the higher products of the fictile art were abandoned for the durable iron pots of Japanese or Siberian manufacture, or for improvised pans of bark. With iron knives, too, which they were permitted to receive

* Compare the lip pattern on Fig. 149 with that on the Ainu anthropomorph, Fig. 155.

in barter with the Japanese, it became a comparatively easy matter to make bowls of wood and to fashion other utensils and implements of this material. This could be carried on during the six months of snow, when pottery-making would be a difficult undertaking. *Sei-net*, or earthenware-body, is the Ainu term for the clay image, one of which, Fig. 146, was recognised as a "Divine Image," while *Sei-nima* is an earthenware tray.* I received from an Ainu a broken piece of plate-like pottery which, he declared, had been made by his ancestors.

The tradition of the Yezo Ainu regarding the *Koropok-guru* is offset by one which credits themselves with the use of stone implements. The Rev. J. Batchelor has also informed me that an old Ainu term for the tattooing incision was *Anchi-piri*, which means obsidian wound. The Kurile Ainu used implements of stone within the last hundred years, but iron had displaced them in Yezo for some two or more centuries and the decay of the neolithic culture began, in all probability, many centuries previously. That the "stone age" is recent in Yezo is shown by the fact that within the last thirty years, many axes and arrow-heads of stone have been found on the surface of the soil, or but slightly imbedded therein. An art like that of the neolithic tool-maker soon degenerates from contact with iron culture.

Some resemblance has been found between the harpoons of the primitive sites and those of the Eskimo. It might be thought that such correspondence extending, as Prof. Tsuboi maintains, to

* Batchelor's Dictionary.

“eye-guards,” which are a special feature of the Eskimo outfit, would create a probability in favour of similarity of race. The content of any one culture, however close its resemblance to another, involves no necessity of racial identity, yet such considerations might properly be employed to reinforce other evidence. In the absence of other evidence they might form the starting point of a working hypothesis but could not, in themselves, carry conviction. The interchange of products is the first result of peaceful contact between alien peoples, sometimes followed by that of language and coincidentally, or consecutively, of race. Some harpoons of the primitive culture are like those of the Eskimo, but others resemble paleolithic specimens from Europe, Fig. 29. A general resemblance, indeed, exists all over the world and often includes details of design and technique. Various arrow-heads of distinctive form are to be found in Japan, of which exact duplicates are seen in Europe and America. The axe, Fig. 16, No. 4, from my excavations at Mitsusawa, is rare in Europe and Japan, but the resemblance extends even to the picked surface for holding it in the shaft. Other instances have been adduced which show that propagation of culture is not necessarily accompanied by admixture of race. Concerning the suggested resemblance to the “eye-guards” of the Eskimo, I have already given my opinion that the appearance in question is a conventional magnification of the human eye.

The failure of philology to establish an Aryan race warns us that language shares with the gross vestiges

Fig. 420.



OUTLINES OF PRIMITIVE AND AINU CRANIA.
(Primitive, Blue ; Ainu, Red.)

of culture the stigma of unreliability. When, therefore, we find many localities where shellheaps exist bearing names traceable to Ainu roots, we can only assume that persons using the same language as the Ainu were formerly established in such places. Indeed we can scarcely insist on so much, for these roots might prove to be a heritage from a stock language, common to the Japanese and Ainu. With regard to local names, however, we are assisted by the fact that Ainu place names are often descriptive of the locality. Ōmori, for instance, is generally supposed to be of Japanese origin, and to refer to a large wood or forest. But in suggesting that the name of this locality (which derives special interest from having been the first shellmound in Japan to yield up its treasures to scientific research)* comes from two Ainu words 'O, "projecting"' and *Mori* a "little hill," I am stating a topographical fact of much interest to a primitive people. A rising ground in the neighbourhood of the sea was of prime importance to the shell-mound builders. Here the village was safe from tidal waves and enjoyed a better strategical position than if built on the lower levels.

Supposing that the *Koropok-guru* were different from the Ainu but spoke their language or one akin to it, and left certain primitive vestiges in Japan, where have they gone? They have utterly vanished from human ken. In the Hokkaido, where some of the Ainu still propound the pigmy theory which originated this discussion, no bones other than those of the Ainu have

* To Professor Morse belongs the honour of being the pioneer of primitive archaeology in Japan. His excavation of this shell-mound was undertaken 30 years ago.

been disinterred from the soil. Neither in Honshu, nor in any other part of Japan, have the bones of a race distinctively alien to the Ainu been unearthed from the shell-mounds. On the contrary, the long bones hitherto found were stated by Prof. Koganei to resemble those of the Ainu in length and indices. The character of flatness (platycnemia) of the tibia was shown to be common to both, though as a feature of primitive tibiæ it could not be held to specially indicate that race.

Thinking that the Mitsusawa shell-mounds might overlie habitations or burials, I carried my trenches down to the red clay and, when occasion indicated, a few feet into this stratum. As these excavations proceed they have to cross the area between the habitations, so that beyond an entirely pulverised skeleton, and a disintegrated skull, no addition has been made to the number which I recorded in 1907.* There is every reason to believe that others will be found, but at present not more than six crania are presentable. Of these, one belongs to Dr. Takashima, an ardent collector, who kindly placed it in my hands for examination. Of the remaining five not more than three are strictly available for estimating the cranial index, but the other two may be included as giving an approximate indication, Fig. 415. In the case of No. 3 the lower portion of the frontal bone was too much disintegrated for repair; in my former statement perhaps I did not make sufficient allowance for the probable length of this bone. This index was given as 80.2. It is not easy

* T. A. S. J. Vol. XXXIV; pt. II.

to estimate the exact length and curvature of the missing portion: on my first measurement I made a possible index of 78.4 and a recent inspection inclined me to think that perhaps the index could be reduced still lower. It might, however, be advisable to retain the first one, or perhaps to regard the second as an alternative. These skulls had been repaired by myself with some assistance from Mr. Yagi, but having been sent to the Imperial University,* No. 6 was re-adjusted so that the index, though still dubious by reason of absence of the occipital bone, approaches closer to that of the Ainu than I had previously (with the intention of giving the estimate least favourable to my opinion) stated. No. 4 having also been slightly readjusted, I make it a trifle more than my previous statement (78.6 instead of 78.4). These indices may now be taken as (1) = 75.8, (2) = 76.3, (3) = 78.4. (?) (4) = 78.6, (5) = 81.3 and (6) = 78.4 (?). Presuming the indices of Nos. 3 and 6 to be approximately correct, this would give an average for the six crania of about 78.1. According to the independent examination of Prof. Koganei the average is practically the same, viz. 78.4. The average for the four complete crania is about the same, viz. 78. While these indices are not inconsistent with the average given by Koganei for

* These bones were forwarded to the Imperial University with the object of making a conjoint examination with Prof. Koganei. This has been unavoidably postponed and will form the subject of a separate treatise. I have therefore omitted detailed measurements, which are of little interest to the general reader. This delay is less to be regretted as I expect to get more material from my excavations. From his unparalleled collection and exhaustive analysis of their osteological remains, Prof. Koganei is the best authority on the physical anthropology of the Ainu. His concurrence in the opinion that the crania in question are of Ainu stock is therefore of considerable importance.

158 Ainu crania, viz. 77, the series is altogether too small to prove more than accordance with the mesaticephaly of the Ainu. While a small series of markedly brachycephalic or dolichocephalic skulls might have a positive evidential value, as indicating race, this cannot be said of mesaticephaly in a region where it is a common feature. For this reason I have laid greater stress upon certain characters which correspond with those of various investigators of the Ainu cranium and notably of Prof. Koganei in his large series of modern Ainu skulls.* Before referring to these, I may state that the average index of the present Ainu ascertained by this investigator was for males, 76.5, while for females it was 77.6. Of a series of 156 skulls, 25.6% were dolichocephalic (index up to 75.0), while 64.7% were mesaticephalic (76 to 80). Of 101 crania belonging to this latter group 44 had indices of from 79 to 80. The brachycephalic crania were in a proportion of 9.6% of the total number. Out of 156 crania, 79 specimens (about half) showed cranial indices of 78 to 84, so that in a small series of 6 skulls the probabilities are not against a tendency toward brachycephaly. If we eliminate the female and child's crania (Nos. 5 and 6) and give to No. 3 the value of 78.4 we get an average of 77.2, while if we take the four skulls (found quite underneath the shell layers of my excavations), we get an average of 77.9.

It was, however, by the comparison of individual

* "Beiträge zur Physischen Anthropologie der Aino." Mittheilungen aus der Medicinischen Facultät der Kaiserlich-Japanischen Universität. Band II. No. 1.

features that I established the identity of the Japanese shellmound and Ainu crania and was led to the conclusion that they are of the same stock. In addition to his own extensive investigation, Prof. Koganei has given, in the work previously referred to, the results of observations on some Ainu skulls by Virchow, Tarenetzky and Kopernicki. The existence of this descriptive material greatly facilitated comparison between the primitive remains and the skeleton of the Ainu. It will be sufficient to give an outline of my preliminary examination. Prof. Koganei, who is at present carrying out an investigation of my specimens, has kindly drawn for me diagraphic outlines of No. 2 and of an Ainu skull, which I have superimposed, Fig. 420. The comparison of two isolated crania, it will be understood, is only made by way of illustration. The same degree of correspondence is not found in all the specimens any more than among the Ainu crania. There are some points of difference here which are not seen in others and *vice versa*. Cranial uniformity is an ideal conception which is never quite realised. An almost constant feature, however, in these skulls, as in those of the Ainu, is the prominence of the glabella and superciliary ridges, G; the meagre denticulation too of the coronal and anterior sagittal sutures, Fig. 415, is a common feature (though both present slight exceptions, No. 2) and so is a moderate development of the occipital protuberance and the superior curved line. There is a tendency to persistence of a frontal fissure, observed also in the Ainu skull.

In one case only, Figs. 416—7, was I able to nearly

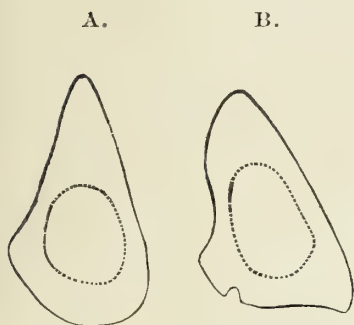
complete the facial skeleton, but in others the superior and inferior maxillary bones were in a fair state of preservation and enabled some observations to be made. With regard to the superior maxillary, the shallow canine fossa is a feature of these and of the Ainu skulls, while the regularity of the inferior (dental) border, the short space between this and the nasal spine, the marked palatal ridge (*Torus Palatinus*) and the numerous perforations for the passage of bloodvessels are found in these and in those of the Ainu. The malar bone presents, in about half the specimens, a posterior fissure, Fig. 419, a truly remarkable feature which is frequently found in the Ainu skull. There is no extension forwards to complete the separation of this bone, the so-called *Os Japonicum*, often noticed in the Japanese but very rarely seen in the Ainu skull. The material at disposal is not yet sufficient to establish other characters, and only a preliminary examination has been made, but so far as they go, the nasal, orbital and palatal indices and the facial angle compare well with those of the Ainu. The minimum frontal diameter corresponds with that of the Ainu. *

The long bones present characters which are possessed by the Ainu in common with other primitive races. Of these, the most characteristic are, torsion

* The ratio between this and the greatest transverse diameter yields an indication of head form perhaps as significant as the cranial index, so much in vogue. In Fig. 417, for instance the minimum frontal diameter is 98 Mm. and the greatest breadth is 142 Mm. This would give $\frac{98 \times 100}{142} = 69.0$. Taking the averages of Koganei for comparison, the head form of the Ainu would be expressed by $\frac{94.6 \times 100}{139.4} = 68.5$.

and perforation of the humerus, curvature of the ulna, channelled fibula, platycnemia of the tibia, Fig. 421 A, torsion of the femur with deep groove along the *Linea Aspera* (Fémur à colonne) and tendency to

Fig. 421.



a third trochanter. There is a tendency to channeling of the tibia, Fig. 421 B. The average length of the femur (1 female and two males = 6 bones) is 388 Mm. Using the coefficient of Manouvrier (3.92) for the male femur under 392 Mm, we get about 151 Cm. for the stature of one, while the

other, which is above this limit, comes to about 160 Cm. according to the tables supplied by this authority.* The female (using the co-efficient 3.87) works out at a trifle over 138 Cm. By this standard, the height is therefore approximately the same as that of the Ainu.

The participation of the Ainu in the primitive culture does not debar us from assuming the existence of other races. The probability of other people having co-existed with the Ainu in the remote past diminishes with the evidence of their former prevalence throughout Japan and the fact that they fiercely resisted intrusion on their soil. But we cannot yet exclude the possibility that other races carried on a neolithic culture in Japan. Several

* Mémoires de La Société d'Anthropologie 1893.

racés co-exist in Saghalin, Formosa, the Philippines and many other islands. The approaches to Japan from the continent by Saghalin and the Tsushima Straits, and from Malaysia and even Polynesia by the island course (such migration being presumptively favoured by the northward direction of the Black Stream), favour the notion that a mixed population reached Japan in prehistoric times. The primitive crania indicate, as do those of the Ainu, a certain admixture of races, but when, how, or where this occurred is entirely a matter of conjecture. The Ainu have derived some characters from the Japanese but miscegenation has affected them to a less degree than the latter. The custom of killing their women and children when retreat was cut off must have originated in their capture and probable enslavement at the hands of the Yamato, who thus received a modicum of Ainu stock. On the other hand the ethics of primitive people have always countenanced the destruction of progeny resulting from contact with alien or hostile neighbours. During the historic era, however, this practice was probably less imperative.

The Japanese people are a mixture of several distinct stocks. Negrito, Mongolian, Palasiatic and Caucasian features more or less blended, sometimes nearly isolated, are met with everywhere. The Negrito is the least prevalent. Prof. Baelz, who has drawn attention to this type along with the Malayan physiognomy, found it comparatively more pronounced in Kyushu, where a Malayan immigration is believed to have taken place. I am not

prepared to say what ethnological significance attaches to the word Malay, though attempts have been made to unravel the racial elements which underlie this political association, which came into organized form long after the Wado period, when the Yamato had become the Japanese nation. The true Malays are regarded as having a considerable preponderance of Mongolian with a certain proportion of Negrito characters. Several tribes of Malaysia who are more or less mixed with the historical Malays are of Indonesian, i.e. of Caucasian, affinities. R. Numata is inclined to believe, on the strength of some resemblance in culture vestiges, that the Kumaso, afterwards known in Japanese history as the Hayato, were of Dyak origin.* The word Kumaso is capable of several interpretations, but the simplest and best is that of Motoori who traced it to *Kuma*, a bear, and *So*, an abbreviation of *Isao*, meaning "strong men." Motoori thought that this name was bestowed on the people of southern Kyushu on account of their fierce and hardy character, but it might have been a totem name, translated, or adopted into Japanese. It may be a coincidence that the bear is the great totem of the Ainu, but it is worthy of mention that Ainu place names have been found in Kyushu.

If a people from Malaysia inhabited Kyushu previous to the influx of the Yamato, it is probable that they were still in their stone phase. The bronze weapons found in this island have not been identified with a Malayan culture and probably were of con-

* "Nihon Jinshu Shinron" (A New Opinion about the Japanese Race).

tinental origin. Some of the Intermediate pottery has been said to resemble that of the Malays, but on this matter I am unable to give an opinion. As we have seen, the Intermediate patterns approach those of the Yamato, but the forms might have been derived from those employed by Malayan settlers in Kyushu. The point, however, of most interest is whether this so-called Malayan element in the Japanese was not formed *in situ* from coalescence of a primitive Negrito stock with Mongolian and other characters from the Continent. This question may be put, but no answer can be obtained without careful exploration of the remains in Kyushu and further knowledge of the anthropological and ethnographical features there, and in Japan generally. The Negrito is primarily brachycephalic and this feature characterises the great majority of the Philippine Negritos.* To what extent this race has entered into the composition of the Japanese it is impossible to determine. That the Japanese have inherited an infusion of Mongolian characters goes without saying, but breadth of face intraorbital width, flat nose, prognathism and brachycephaly might be traced to the Negrito stock as dolichocephaly in Europe appears to have been derived from that of the Negro. Whether the Mongolian type itself might not have evolved in inter-glacial or post-glacial times in Asia from a Negrito ancestry is another question which cannot be answered in our present state of knowledge. But the existence of the Mongolian fold, straight hair, and other charac-

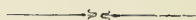
* "Negritos of Zambales," by W. A. Reed. Ethnological Survey Publications. Manila, 1904.

ters, may be attributed to admixture either in Japan or elsewhere after the type had materialised. It is not impossible that the Negrito was mingled with Indonesian or Mongolian elements, as in the case of the Igorrot of the Philippines, before arrival in Japan. The agricultural population of Japan presents superficial resemblances to the Igorrot, and some of the customs carry a suggestion of a common culture.* An affinity of language has also been hinted at, but on inadequate grounds at present.† It is probable, however, that the Yamato were partly mixed with Mongolian blood before arrival in Japan, and that the importation of agricultural slaves from the mainland led to further admixture with this element. The leaders, if we may judge from the Caucasian and often Semitic physiognomy seen in the aristocratic type of Japanese, were partly of Caucasian, perhaps Iranian, origin. Some support of this proposition is found in the *Haniwa*, which not seldom exhibit features inclined to the Caucasian, rather than to the Mongolian type (Chapter 12). These were the warriors, the conquerors of Japan, and afterwards the aristocracy, modified to some extent by mingling with a Mongoloid rank and file and by a considerable addition of Ainu, that is to say, of Palasiatic (proto-Caucasian?), blood. A light skin was the ideal of the Yamato. There are marked allusions to arms "white as the paper mulberry bark," "Whiteness like roots," etc. in the ancient classics. Presumably from racial admixture, very light skins are often found

* "The Bontoc Igorrot," by A. E. Jenks, pp. 40 et seq. Eth. Survey Publications.

† "The Nabaloi Dialect," by O. Scheerer, p. 99. Eth. Survey Publications.

with the round and somewhat Mongoloid face, but the combination of rather light complexion and Semitic physiognomy is not uncommon. The average head form is mesaticephalic with a tendency to sub-brachycephaly, whereas the Mongolian TYPE is highly brachycephalic. The Japanese are not a race but a loose mixture of variously assorted racial features which in times past have found their way to this Ultima Thule of Asia.



Appendix A.

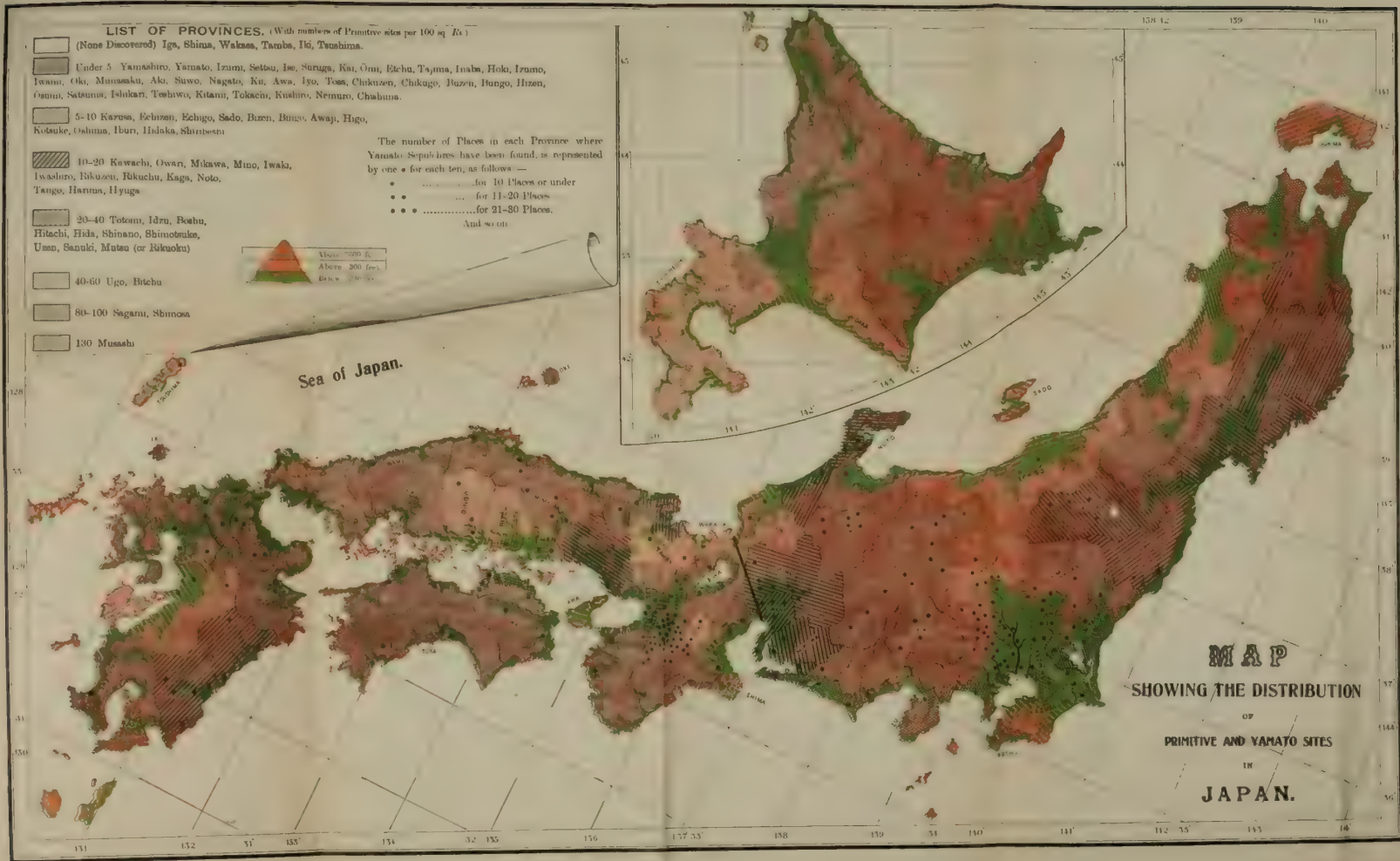
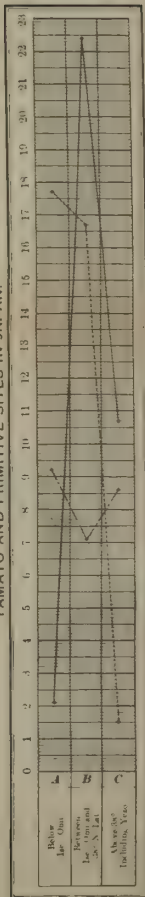


CHART
SHOWING THE INCIDENCE OF
YAMATO AND PRIMITIVE SITES IN JAPAN.



APPENDIX B.

SHELLS FROM JAPANESE PRIMITIVE SITES.

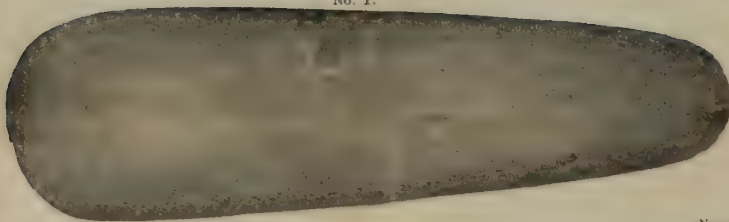
Prof. Oka has kindly sent the following list :—

- 1.—*Helix mackensii* Ad. et Reeve.
- 2.—*H. quæsitæ* Linn.
- 3.—*H. luhuanæ* Sowerby.
- 4.—*Cyclophorus herklotzi* Mart.
- 5.—*Haliotis gigantea* Gmel.
- 6.—*Natica ampla* Phil.
- 7.—*N. janthostoma* Deshayes.
- 8.—*Rotella costata* Lesson.
- 9.—*R. gigantea* Lesson.
- 10.—*Turbo marmoratus* Linn.
- 11.—*Marmorostoma* sp. ?
- 12.—*Dolium luteostoma* Küster.
- 13.—*Rapana bezoar* Linné.
- 14.—*Trochus nigricolor* Dunker.
- 15.—*Tr. argyrostoma* Gmel.
- 16.—*Monodonta labio* Linn.
- 17.—*Purpura bronni* Dunker.
- 18.—*P. luteostoma* Chemn.
- 19.—*Turbo cornutus* Gmel.
- 20.—*Strombus luhuanæ* Linn.
- 21.—*Siphonalia cassidariaeformis* Reeve.
- 22.—*Cancellaria spengleriana* Desh.
- 23.—*Buccinum undulatum* Linn.
- 24.—*Hemifusus tuba* Gmel.
- 25.—*Vivipara japonica* Mart.
- 26.—*Eburna japonica* Reeve.
- 27.—*Nassa gracilis* Reeve.
- 28.—*Fusus perplexus* A. Adams.

- 29.—*Ancillaria rubiginosa* Swainson.
- 30.—*Cerithium Kochii* Phil.
- 31.—*Lampania multiformis* Lischke.
- 32.—*Vermetus imbricatus* Dunker.
- 33.—*Pecten laqueatus* Sowb.
- 34.—*P. yessoensis* Jay.
- 35.—*P. laetus* Gould.
- 36.—*Arca granosa* Linn.
- 37.—*A. subcrenata* Lischke.
- 38.—*A. inflata* Reeve.
- 39.—*A. ocellata* Reeve.
- 40.—*Solen Gouldi* Conrad.
- 41.—*Pectunculus albolineatus* Lischke.
- 42.—*P. fulguratus* Dunker.
- 43.—*Cyclina chinensis* Chemn.
- 44.—*Dosinia troscheli* Lischke.
- 45.—*Cardium muticum* Reeve.
- 46.—*Tapes philippinarum* Ad. et Reeve.
- 47.—*Mactra sachalinensis* Schrenk.
- 48.—*Lutraria maxima* Jonas.
- 49.—*Sunetta menstrualis* Menke.
- 50.—*Arca obtusa* Reeve.
- 51.—*Tellina dissimilis* v. Martens.
- 52.—*Mya arenaria* Linn.
- 53.—*Panopaea* sp.
- 54.—*Corbicula pexata* Prime.
- 55.—*Mactra veneriformis* Deshayes.
- 56.—*M. sulcata* Desh.
- 57.—*Cytherea meretrix* Linn.
- 58.—*Mytilus crassitestata* Lischke.
- 59.—*Pinna Chemnitzii* Hanl.
- 60.—*Anomia ehippium* Linn.
- 61.—*Ostrea denselamellosa* Lischk.
- 62.—*O. gigas* Thunberg.
- 63.—*O. cuculata* Born.

APPENDIX C.

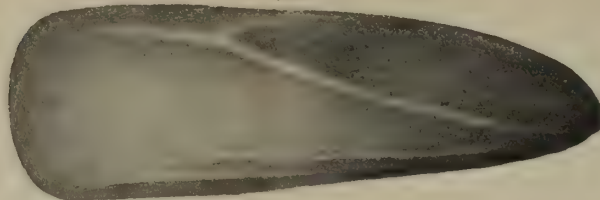
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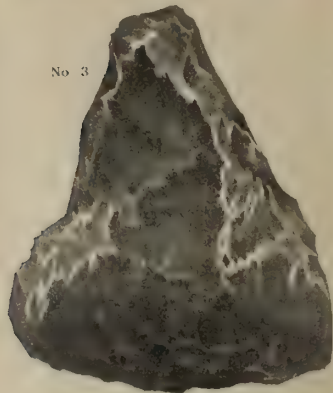
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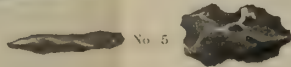
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No. 6



No. 5



Showing the actual proportions of 1. Axe. 2. Grooved Axe. 3. Wedge or Chisel.
4. Fiddle-shaped Implement. 5. Arrow-head. 6. Spear-head.

APPENDIX D.

Not only has the dolichocephalic been found in much older strata than the brachycephalic skull, but it is rather more primitive in its type. The Trinil (*Pithecanthropus erectus*), Neanderthal, Spy, Galley Hill, and other early crania have certain simian characters, e.g. prominence of the glabella and superciliary arches and narrow frontal diameter, which persist in many examples of the dolichocephalic skull and are rarely to be seen in those of brachycephalic type. Must we then assume that the latter has been articulated to a longer human apprenticeship, or merely that its environment contemporaneously led to this change? If we take the Mongolian type as representative of the round-headed races, we see nothing to countenance the idea that it is of older lineage. On the contrary we find in its prognathism, its wide nose, its infantile (Mongolian) fold, and sometimes in inferior frontal height, primitive characters which oppose the notion that it is of more remote origin than the dolichocephalic type.

Regarding the brachycephalic type as the product of a special, and probably circumscribed environment, we have to ask whether this environment was not specially conducive to the growth of a neolithic culture. The balance of evidence is in favour of the association of the neolithic culture with brachycephaly. In England there is no definite intermediate stage though "palæolithic" types persist in the neolithic culture. In some of the European caves a change has been seen in the gradual substitution of ground for chipped tools. But here culture contact has favoured propagation of technique, and transitional forms are rare. In England, neolithic implements are found with long skulls, but it is somewhat probable that the dolichocephalic race of the glacial and interglacial periods had disappeared, and had been followed by fresh migrations

from the continent of original and mixed stock at an early epoch, (say 20,000 years ago), but preceded by an ample interval for change of culture.

At a remote period, say between 50,000 and 20,000 years ago, the brachycephals might have entered Europe carrying with them a neolithic culture. While the present concentration of the round-heads in central Asia cannot be taken as absolute proof, it lends probability to other considerations which point to Asia as the source of this immigration. But their present habitat, north of the Himalayas, must have been reached after the glacial period, which leaves open the supposition that the TYPE might have originated elsewhere. The presence of the *Pithecanthropus erectus* in Java proves the existence of man in this quarter of the globe in Pleiocene times. The survival of the brachycephalic Negrito prompts the query whether he were not an ancestor of the Asiatic Brachycephals. The researches of Wallace* and others have established the Indo-Malayan Archipelago as a former portion of the continent, the seismic disturbances of which region would suffice to account for the dispersal of humanity in middle quaternary times. The tract of round-heads connecting this Archipelago with central Asia,† is suggestive.

The neolithic culture is apparently associated with brachycephaly and with some knowledge of cereal cultivation. Is the same environment accountable for all three, or is the combination fortuitous, the result of changed circumstances or propagation from elsewhere? Did the same conditions which fostered the proto-Mongolian type lead to the development of the ground implement and cereal cultivation? Implements adapted to cutting wood imply house erection, the partial clearing of forests, with space for wild cereal growth, and some diminution of animal food. The construction of houses and protecting palisades, too, would favour domesticity of animals. But climate must have greatly

* "The Malay Archipelago." p. 14.

† World Map of Head Form in "The Races of Europe" by Prof. Ripley. Opposite p. 43.

influenced this development by favouring, at the expense of other animals, the survival of house building and fire sustaining Man. The brachycephalic type, retreating and advancing according to its endurance, finally spread over the greater portion of the Eurasiatic continent.

APPENDIX E.

Writers on Archæology refer to the existence of vermillion in the primitive sites of Japan. Accepting this statement, it was only recently that I began to suspect that the pigment on pottery, shells, stone and bone from my excavations might be hæmatite. It is well known that vermillion can be produced in many shades from pink to almost brown, but an analysis made at my request by Mr. Ernest James shows conclusively that the colour used was hæmatite, not cinnabar. One lump of pigment appeared to be an oxyhydrate. The analysis of this gentleman also confirms my opinion that while cinnabar or vermillion occurs in the Yamato tombs, ochre was likewise used to decorate the stone imitations found therein.

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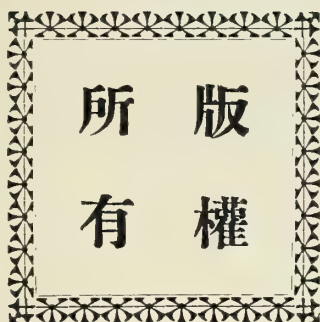
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